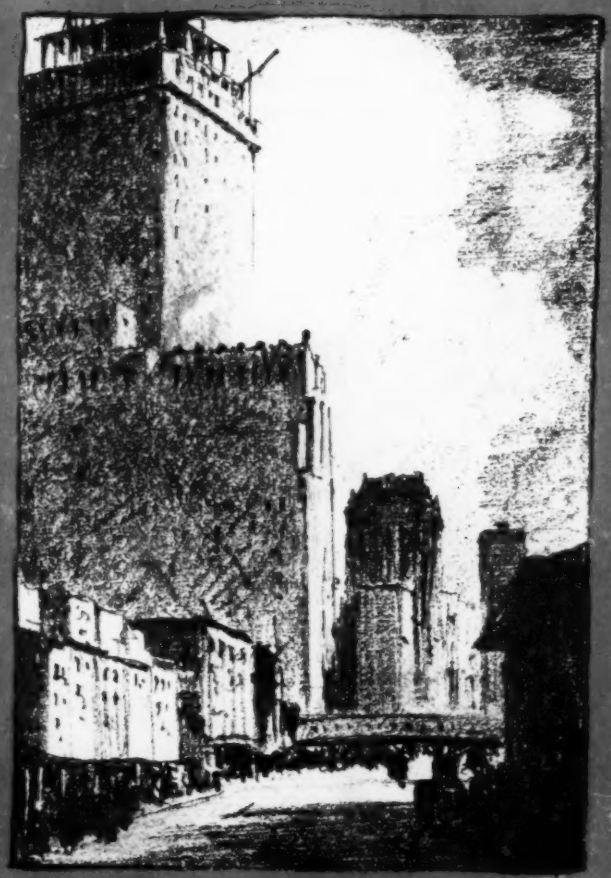
AUG 6 1925

The ARCHITECTVRAL RECORD



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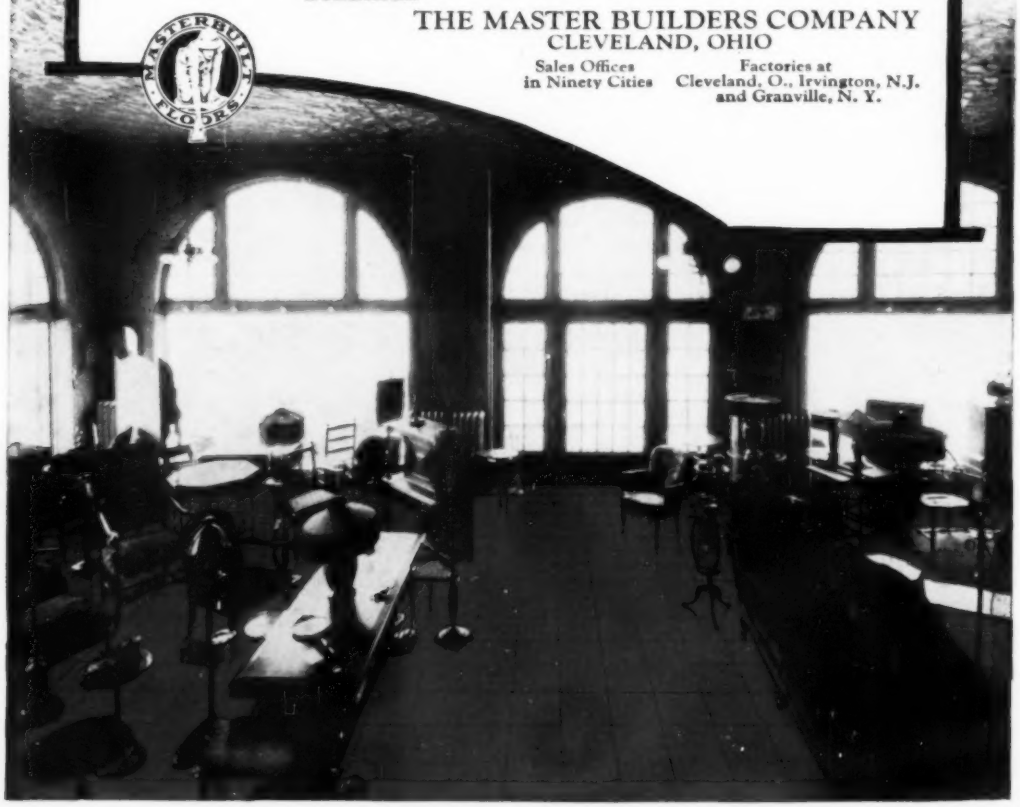


This tapestry panel is an American made product and is a modern interpretation of the 15th century Millefleur. It was made about five feet high by six feet wide and was one of a set of panels made for a private residence in California. Designed and woven by the Edgewater Tapestry Looms.

INTERPRETATION OF THE 15TH CENTURY MILLEFLEUR.
EDGEWATER TAPESTRY LOOMS.

UNIV. OF MICH.

The
ARCHITECTVRAL
RECORD

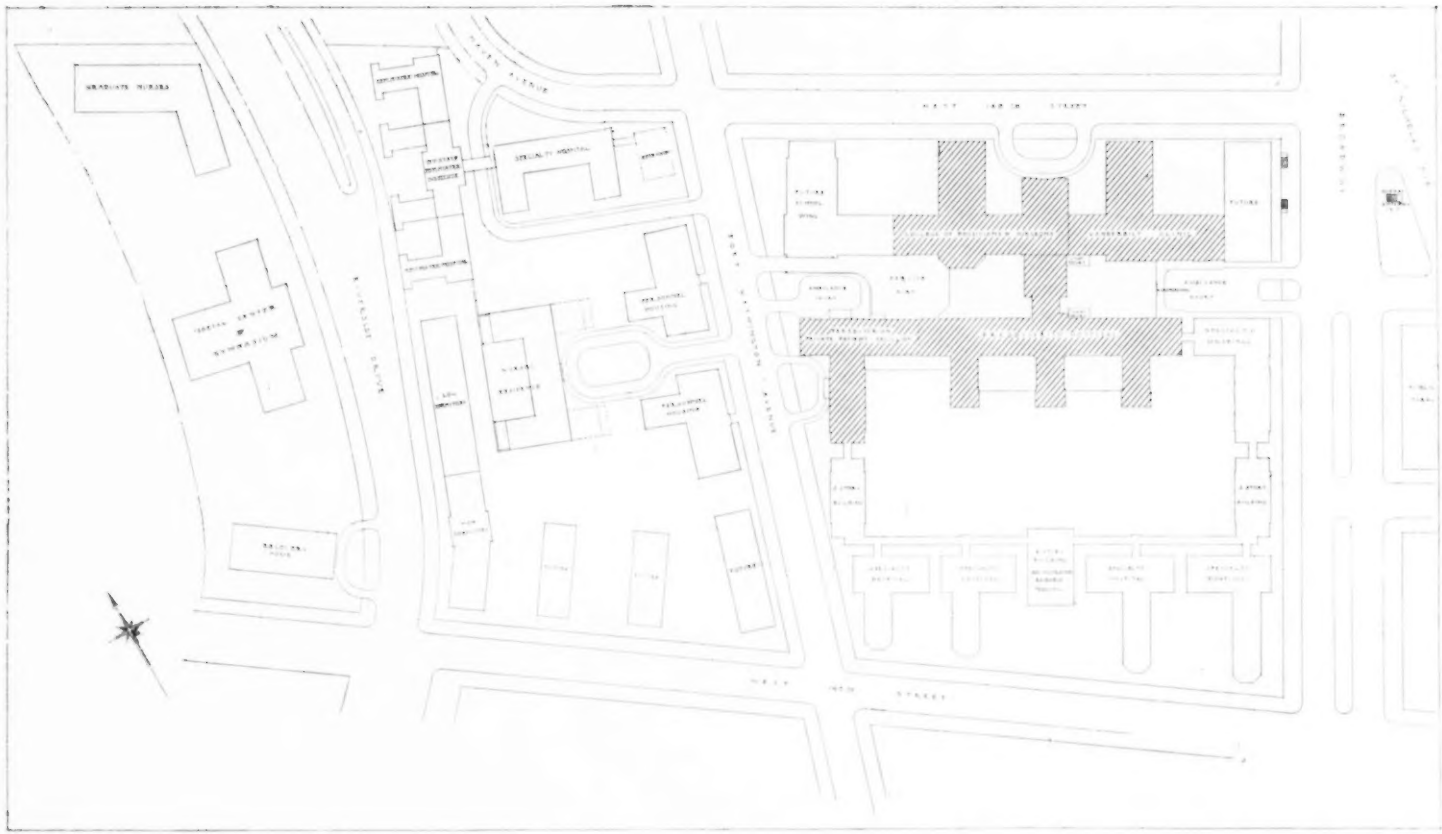
VOLUME 58 AUGUST, 1925 NUMBER 2

NEW YORK'S GREAT MEDICAL CENTER

By
Marrion Wilcox

COLUMBIA UNIVERSITY'S College of Physicians and Surgeons and the Presbyterian Hospital are to be congratulated heartily upon the actual beginning of the construction of the first of a group of buildings which will occupy a superb site —the twenty acres or more bounded by Mitchel Square and Broadway on the east, the Hudson River on the west, 168th Street on the north and 165th Street on the south. Here, according to the architect and to officers of the university and the hospital, the purpose is to establish medical institutions which shall represent most helpfully research, teaching and every important branch of healing. And other, somewhat varied statements of the purposes of the undertaking explain both its popular appeal—that aspect of it which possesses interest of a general character —and the special character of problems it presents to architect and builder. Let us add, therefore, that the intention is to provide clinical facilities, hospital treatment, a medical school and research laboratories which shall be carried on *under one roof* to a very large extent, contrasting in this respect with the less complete developments of the medical center idea at Johns Hopkins University, at the Yale and Harvard Medical Schools, and at Berlin and Vienna. Again, the aim is not only civic, but also national and international. The immediate beneficiaries will be the people of New York City and State, and yet the scope and excellence of the work to be done will insure results highly serviceable to mankind, testifying (President Butler says) alike to the growing power of human knowledge to minister to the physical and mental ills of man and to the zeal of civilized man to help and to cure his less fortunate fellows. An eminent practitioner comments that the intimate work in scientific research and in clinical medicine of the combined staffs should afford the patients the best opportunity for the accurate diagnosis and for the relief or cure of their diseases. It should give to the students of the school a proper balance between a foundation in science and an experience in the clinical art of medicine. In fine, the buildings must be so designed that all departments may be conducted successfully as interdependent

EDGEWATER TAPESTRY LOOMS



Plot Plan

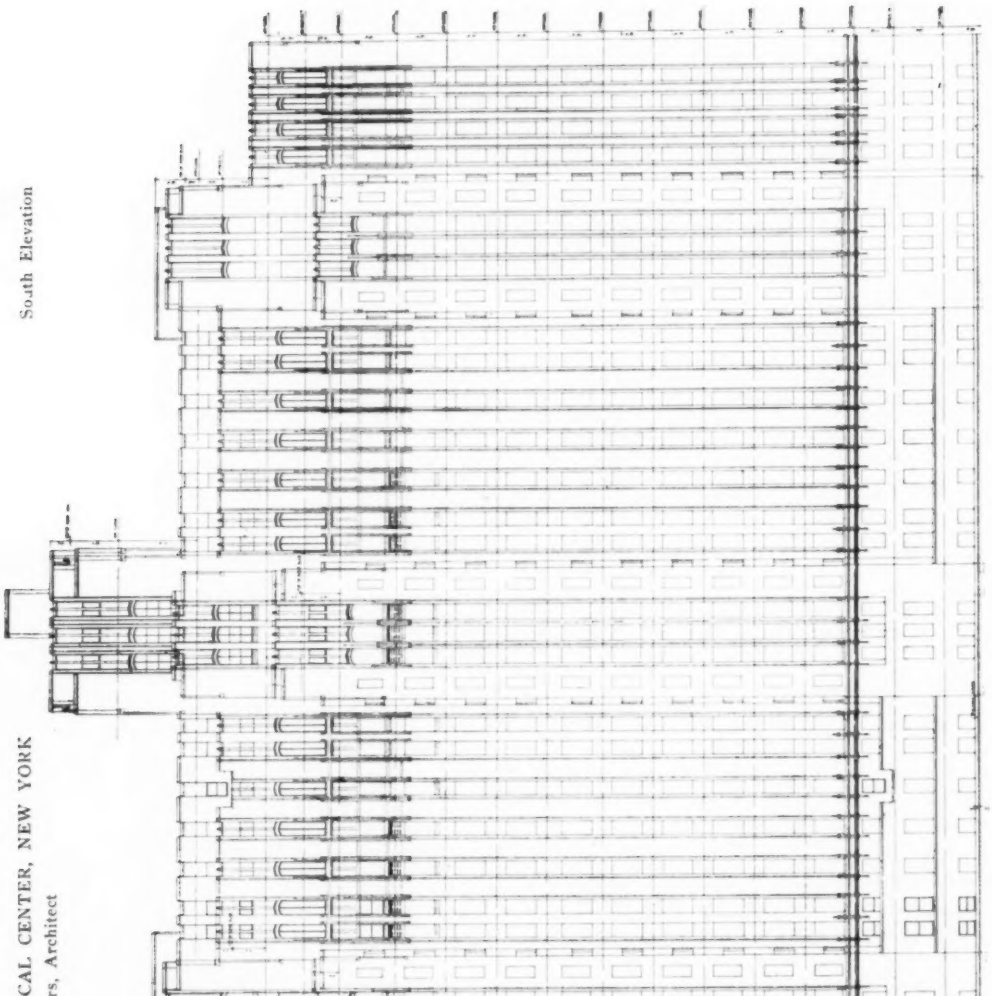
COLUMBIA-PRESBYTERIAN MEDICAL CENTER, NEW YORK

James Gamble Rogers, Architect

parts of one great undertaking, with equal regard for the advancement of science, the training of physicians, surgeons and nurses, and the improvement of the public health. Less difficult is the problem of designing the principal structure in such a manner that, instead of being organized as one unwieldy, rather vast institution for the care of the sick, it shall be composed of a series of more manageable small hospitals, each complete in itself yet all attaining the highest efficiency by functioning together.

The history of an affiliation which now is expanding so famously must not be overlooked. During recent years members of the staff of the Presbyterian Hospital, at East 70th Street and Madison Avenue, had been selected from the faculty of the College of Physicians and Surgeons of Columbia University, and this relationship had been reciprocally advantageous although classroom and hospital were more than a mile apart and the Presbyterian Hospital could befriend only a limited number of students of clinical work. Its buildings, which had received no additions in thirty-two years, were admitted to be worn out, overcrowded, and distinctly inadequate for such care of patients as modern medical science requires. The time had come when a new home for the honored old organization was an urgent necessity. So much for the point of view of the Board of Managers of the Hospital. Now consider that the same lack of ample quarters at the Presbyterian obliged many of the medical students to obtain first-hand observations of practical treatment in various scattered hospitals—a condition which made a unified educational policy difficult. Naturally it seemed desirable to bring school and hospital together, and to provide for a more nearly perfect co-operation. Discussions to that end began seven or eight years ago. In 1921, when a joint board was established to draw up plans, there occurred a striking new demonstration of the power of convincingly good plans. It would seem that, with a really good plan in mind and in hand, half the battle is won—at least whenever the plan has the charm of practical philanthropy. A member of the Joint Administrative Board, Mr. E. S. Harkness (together with Mrs. S. V. Harkness), donated a field for still larger—even much larger—ideas of co-operation. Columbia University's quota of $3,000,000, with which to build on the new site a Medical School in succession to the old College of Physicians and Surgeons at 59th Street and Tenth Avenue, was filled by contributions of $1,000,000 each from the Rockefeller Foundation, the General Education Board, and the Carnegie Foundation. The Presbyterian Hospital took steps to obtain, as its building quota, $4,500,000 in addition to the $2,500,000 from the sale of the Madison Avenue-70th Street site; and it was understood that, according to the terms of the sale just mentioned, transfer of title will not be completed for four years, the purchasers distributing their payments over that period. Thus we have an estimate of $7,000,000 for the new Presbyterian Hospital building and of $3,000,000 for the Medical School, or about $10,000,000 for this part of the group. On January 31, 1925, ground was broken for the excavations; the contracts for the steel work were awarded a month or two earlier; and it seems permissible to anticipate the opening of both institutions in the autumn of 1927.

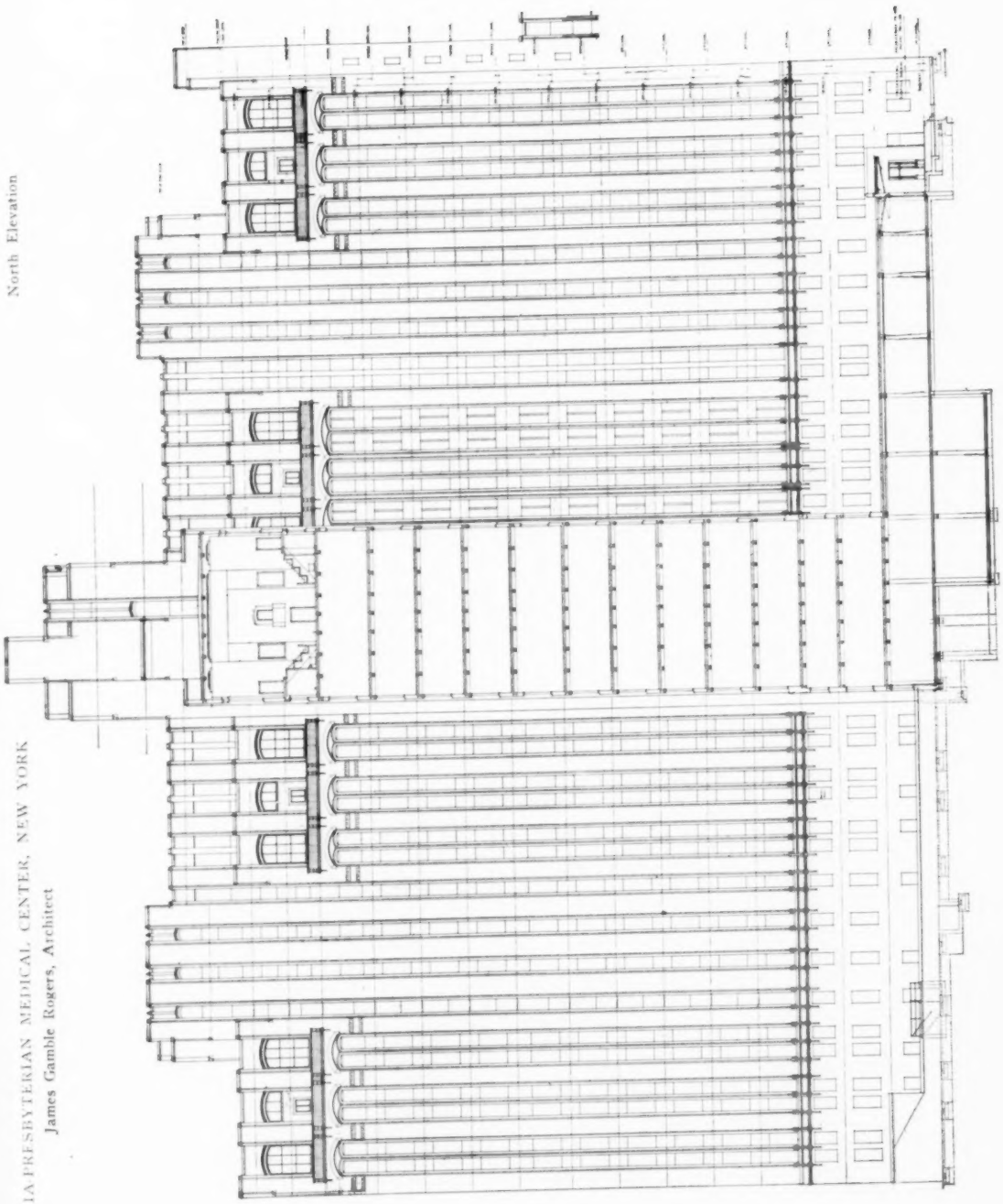
We have mentioned in the foregoing paragraph the still larger—even much larger—ideas of co-operation, and the fact is that the official plans, dealing with the Presbyterian Hospital and the College of Physicians and Surgeons as only the nucleus of the Medical Center, now contemplate expressly the addition of a maternity hospital, a dental school, a children's hospital; to be followed in due season by hospitals for scientific study and treatment of the eye, the ear, nose and throat; hospitals, psychiatric and neurologic, and other institutions that can co-operate profitably with the Presbyterian Hospital and Columbia's School of Medicine. Fortunately the site is, literally, a field so large that many additions of the indicated character can be made without crowding. This leads up to the consideration of the architecture which



South Elevation

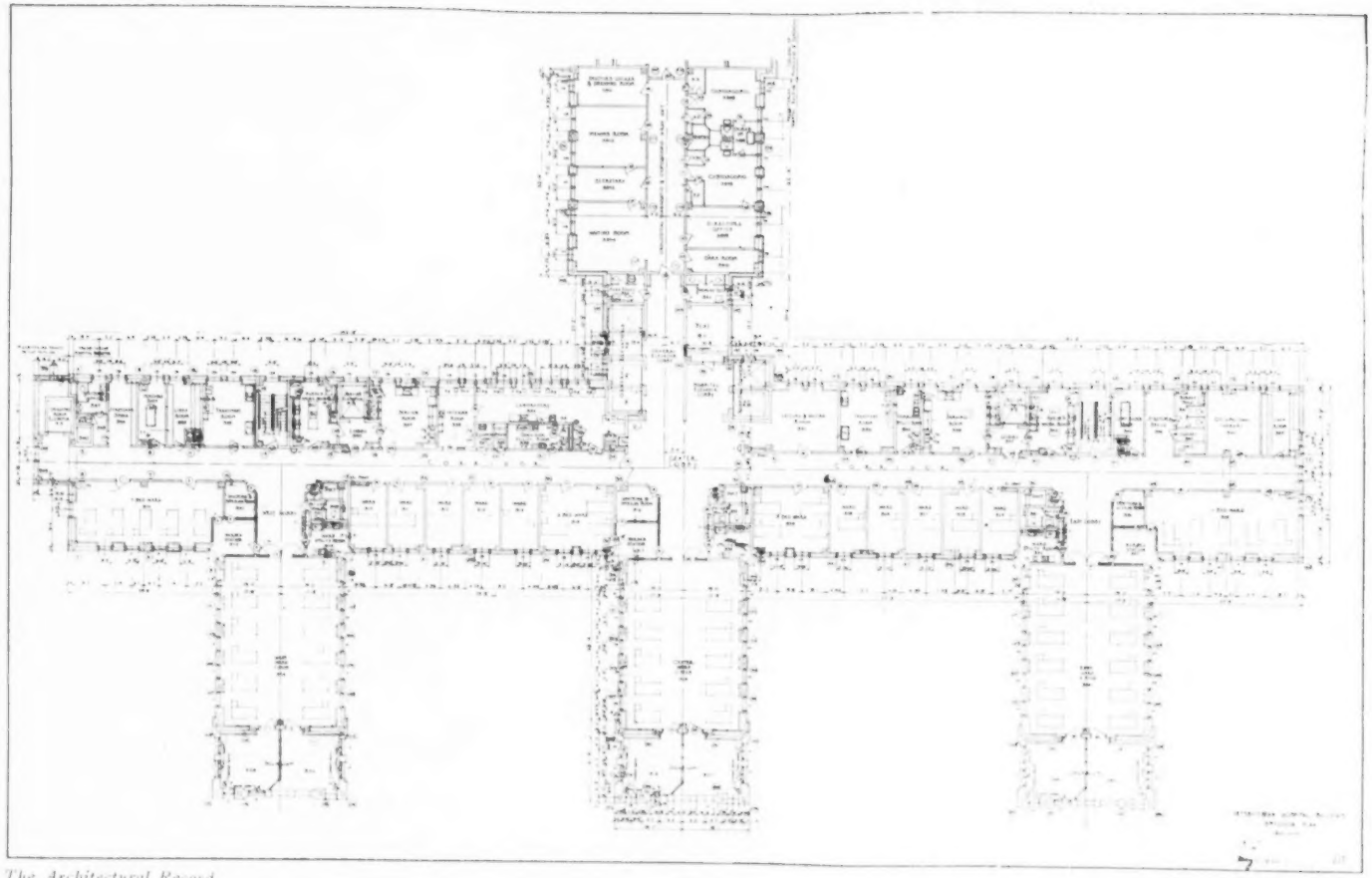
COLUMBIA-PRESBYTERIAN MEDICAL CENTER, NEW YORK

James Gamble Rogers, Architect



North Elevation

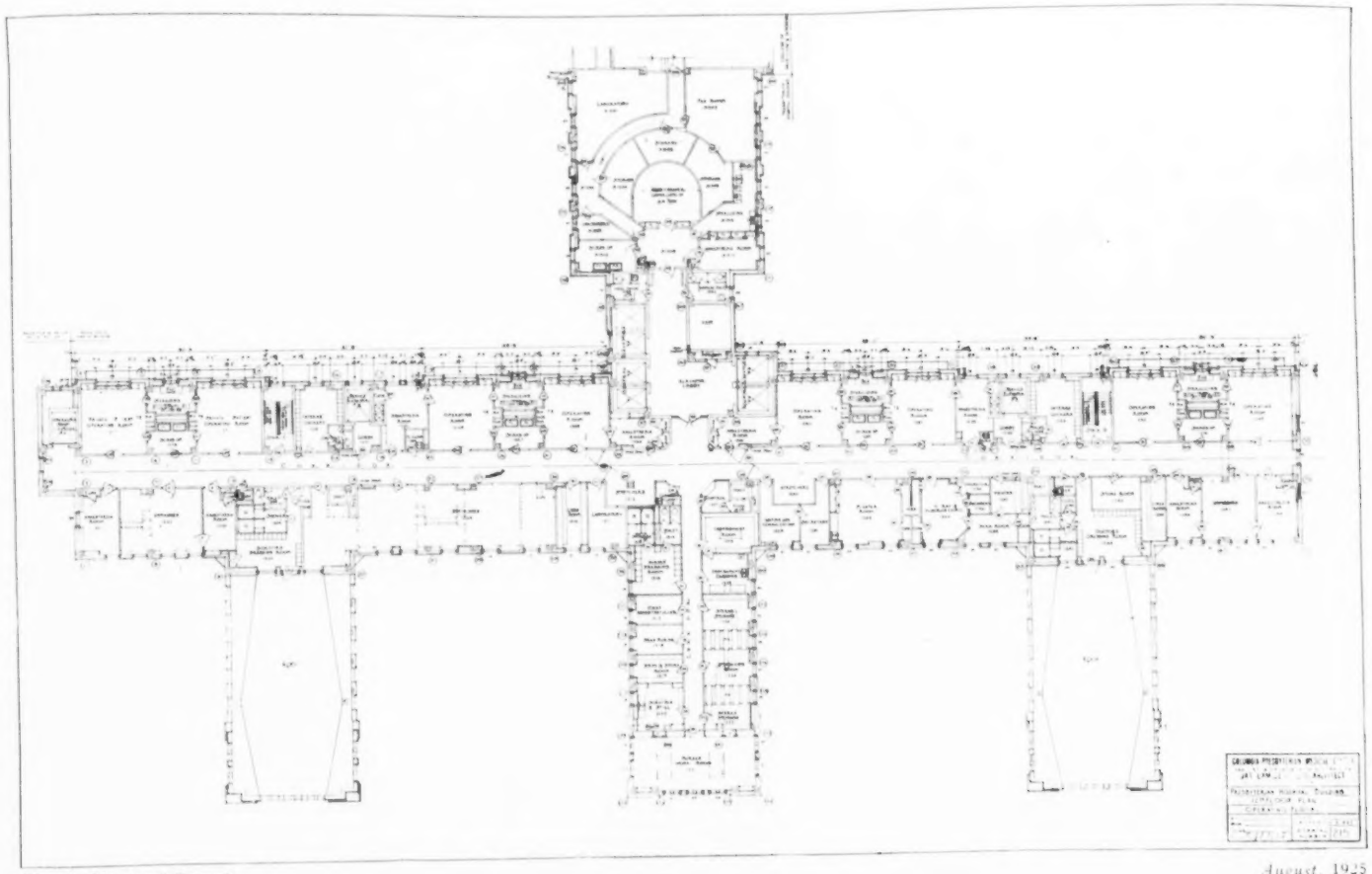
COLUMBIA PRESBYTERIAN MEDICAL CENTER, NEW YORK
James Gamble Rogers, Architect



Plan of Eighth Floor

COLUMBIA-PRESBYTERIAN MEDICAL CENTER, NEW YORK

James Gamble Rogers, Architect



Plan of Twelfth Floor

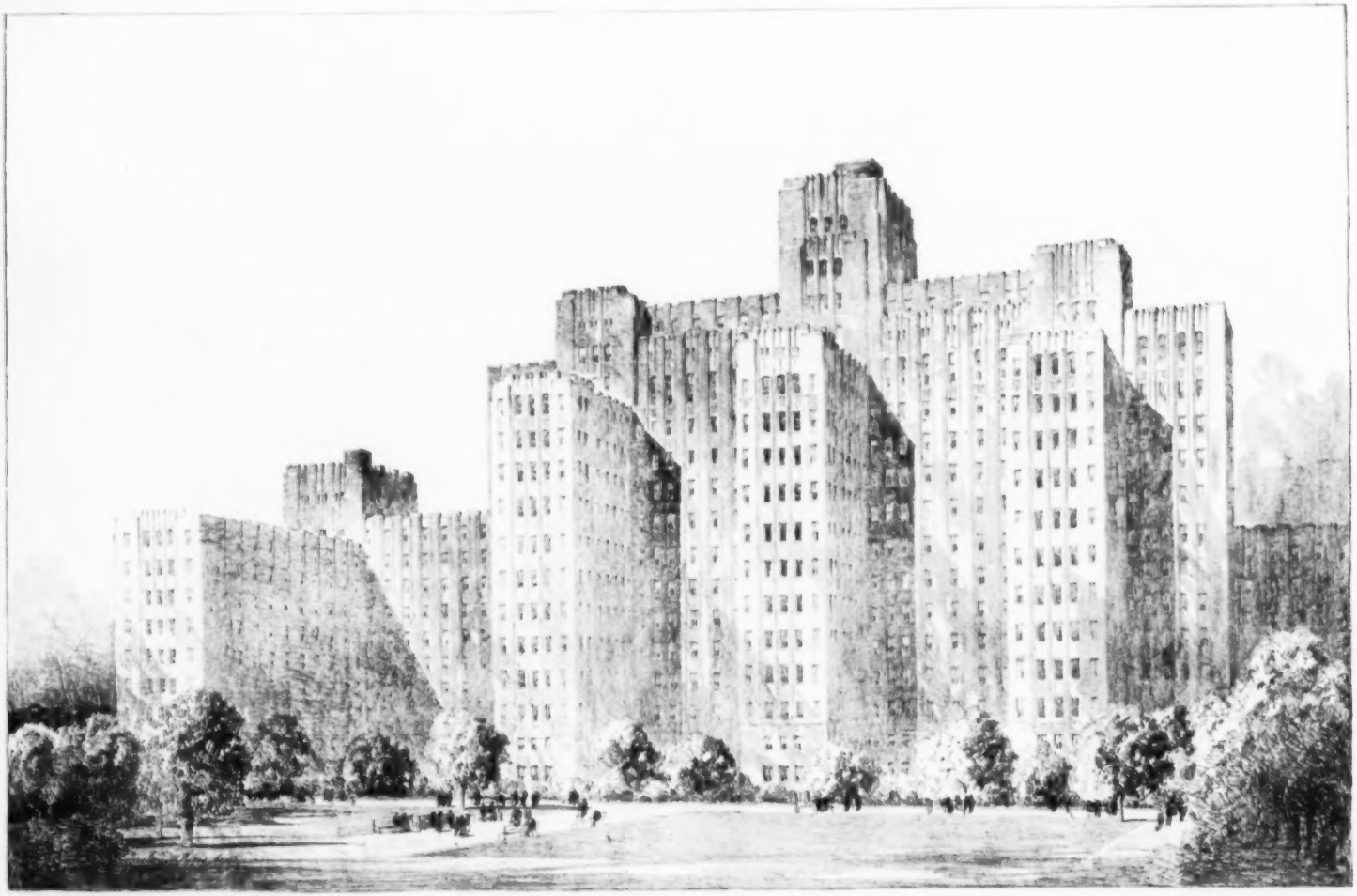
COLUMBIA-PRESBYTERIAN MEDICAL CENTER, NEW YORK

James Gamble Rogers, Architect

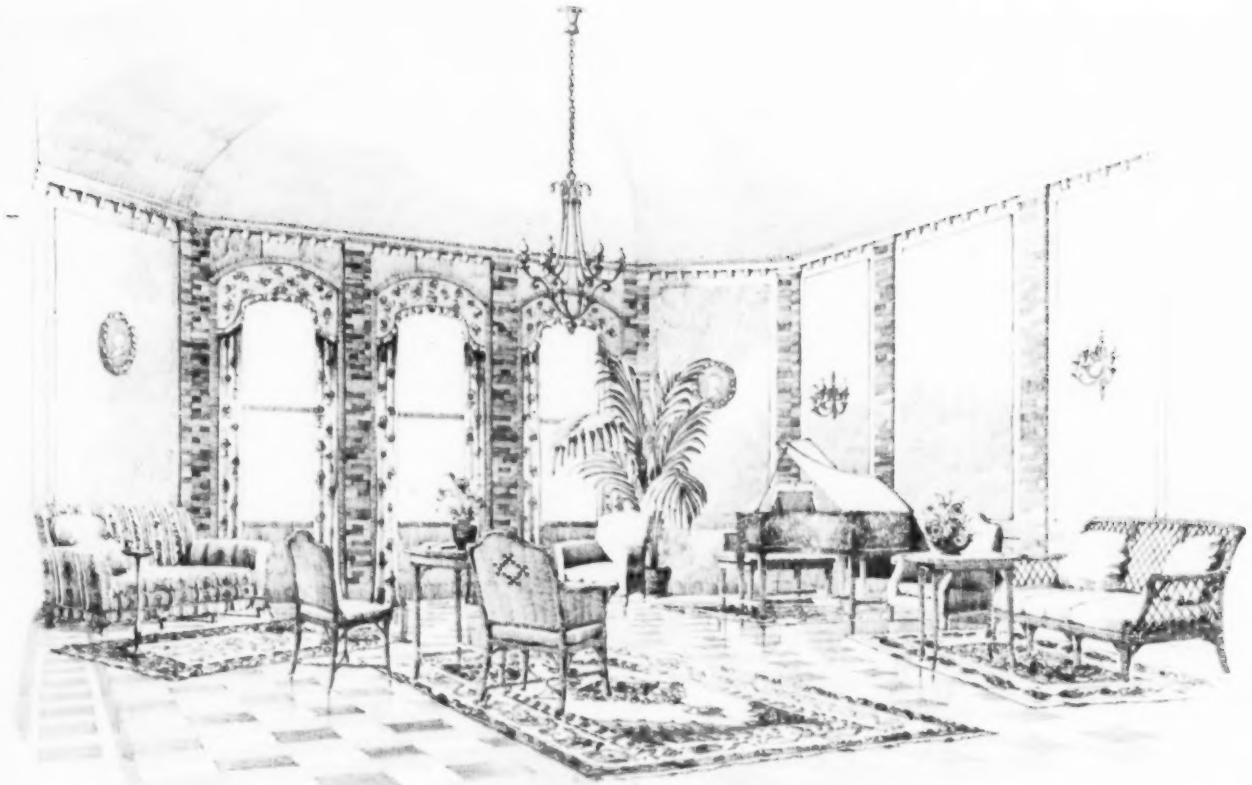
will be exemplified in structures so numerous—especially its relation to the environment. And so we speak of architectural *appositeness* and *oppositeness*: terms differing in only one letter, but that letter, significantly, the first.

The location of the buildings, in a residential district commanding a fine view of the Palisades and the Hudson River, has itself proffered a suggestion, which has happily been caught up from the subconscious to the conscious, in regard to the creation and employment here, architecturally, of silhouette and surfaces with the excellent quality of appropriateness to environment—the quality of being proper, fit, pertinent and well-adapted: in one word, *appositeness*. In this they will be differentiated very notably from such architectural works in New York as make a show of their own incongruity, their disharmony with adjacent buildings, with the landscape and the surroundings generally—the quality of being adverse, antagonistic: in one word, *oppositeness*. Therefore the architecture here will be, not of a conventional style, but such as the internal structure and the purpose of the undertaking require and the location suggests. Thus, some of the windows will be placed wherever daylight is most needed, not always just where the usual processional regularity decrees; the walls of steel with facing of brick, stone-colored or grey, will rise sheer and unbroken by dust-catching ledges or cornices; and a drawing which shows the general hospital section together with the private-patient pavilion—really a south elevation—resembles (if we rub out some of the details) those natural features in the landscape which are most impressively architectural, quite like walls of masonry yet rather like palisades that might have been built in those days when there were giants. Now, to any one or every one objecting that the great dike of rock called the Palisades is a rather severely simple prototype, let us reply immediately as follows: The height of the buildings in the southern portion of the field will be strictly limited, so that in the central or northern buildings the patients, the staff, and visitors may receive full benefit of the sunlight. Accordingly there will be observable here the fine effect of a gradation of the heights of an assemblage of structures. And it is axiomatic (if indeed anything in æsthetics is axiomatic) that such an effect is decidedly enhanced whenever the units of the group have their architectural simplicity carried to the extreme which properly enough may be called architectural severity.

The entrance rotunda will be on the north (168th Street) side. This will rank as the main entrance, but for those who will use most frequently the Medical School building, southwest of the rotunda, a separate entrance will be provided, and perhaps the same freedom of access is assured to future frequenters of the clinic, the building for which will occupy a space southeast of the rotunda. On Fort Washington Avenue, which bisects the field, and in Broadway, there will be ambulance entrances; and the pavilion for private patients will have its driveway for visitors on the western side, and its independent ambulance court on the northern side. The main buildings will be fourteen stories high. The college section will face West 168th Street and the hospital section will face the south, with lawns and trees in the wide foreground. The two sections will be connected by a many-storied axis, the rooms in which will afford a meeting-ground shared in common by the two institutions and so furnished and equipped as to facilitate the work of both: an axis or nexus which, with its corridors, its shared facilities, is the very type of co-operation, the architect's way of satisfying the desire of owners or clients to labor conjointly. As a consequence of this arrangement (the authorities point out, when conveying their approval of the nexus or axis) physicians, surgeons and medical students will be enabled to divide their work between the Medical School lecture rooms, the consultation and treatment rooms, and the hospital wards, clinics and operating rooms without the loss of time and waste of energy which hitherto seemed unavoidable. It is pointed out also that the new group-



Private Patient Pavilion—Presbyterian Hospital
COLUMBIA-PRESBYTERIAN MEDICAL CENTER
James Gamble Rogers, Architect



Music and Recreation Room
COLUMBIA-PRESBYTERIAN MEDICAL CENTER
James Gamble Rogers, Architect

The
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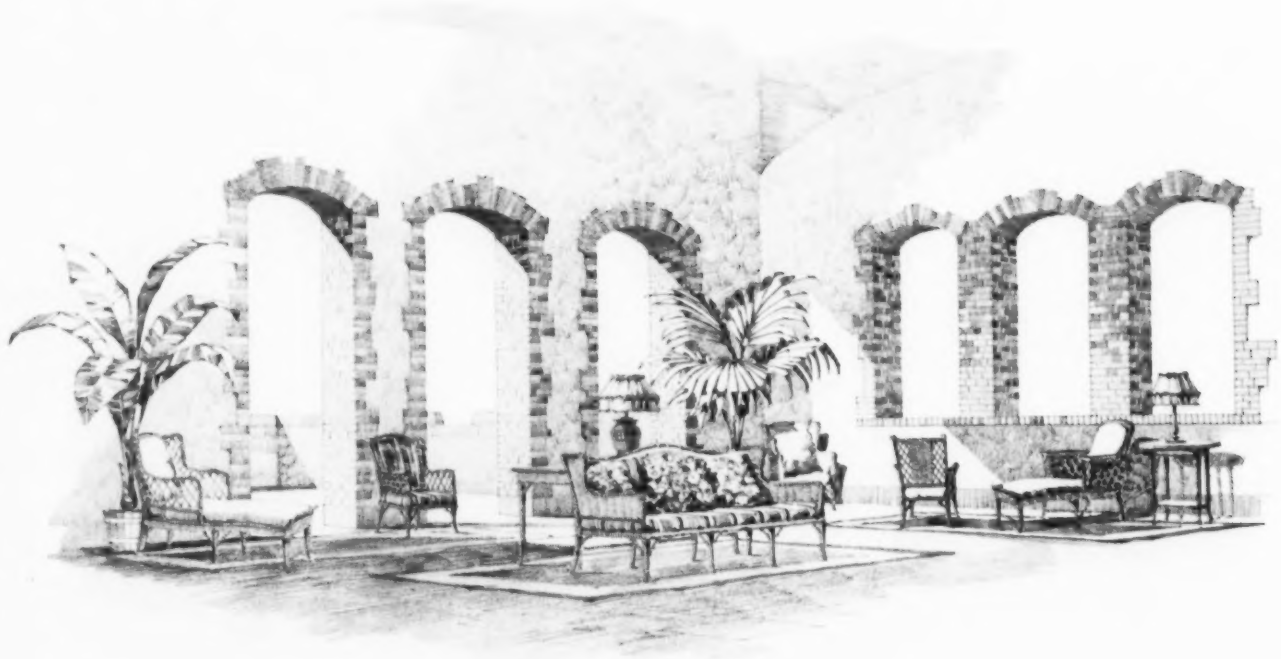
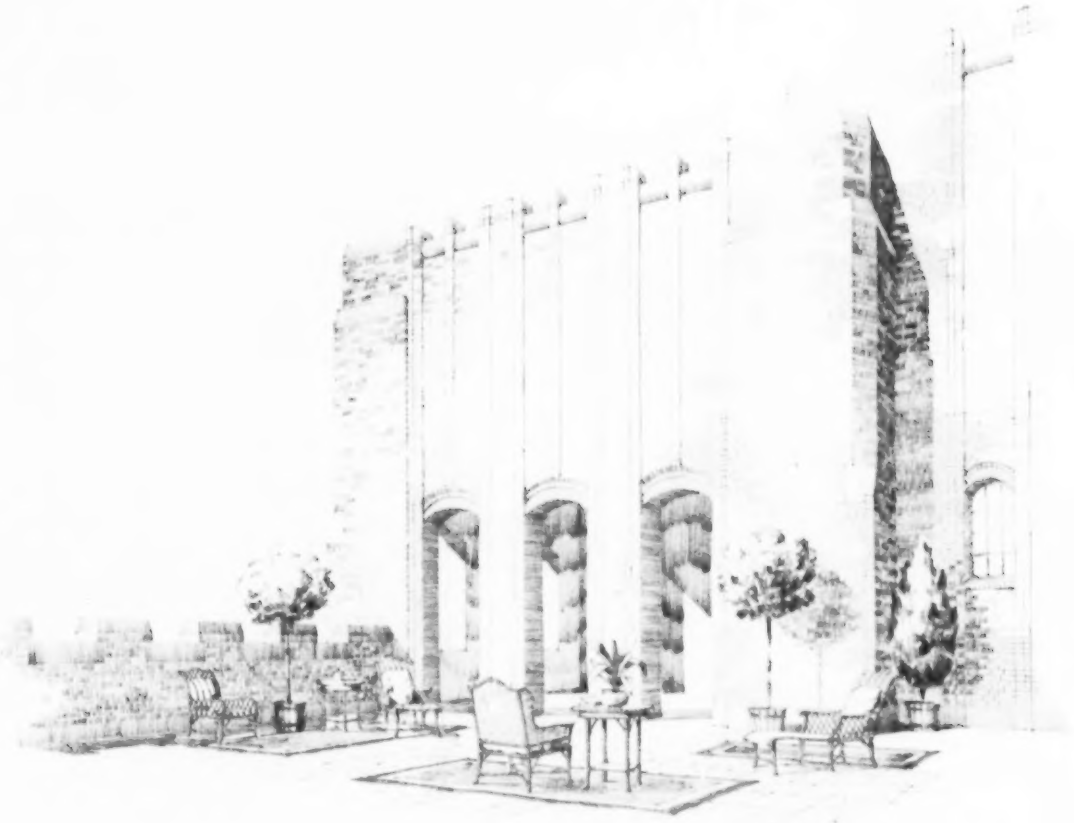


Interior of Loggia
COLUMBIA-PRESBYTERIAN MEDICAL CENTER
James Gamble Rogers, Architect



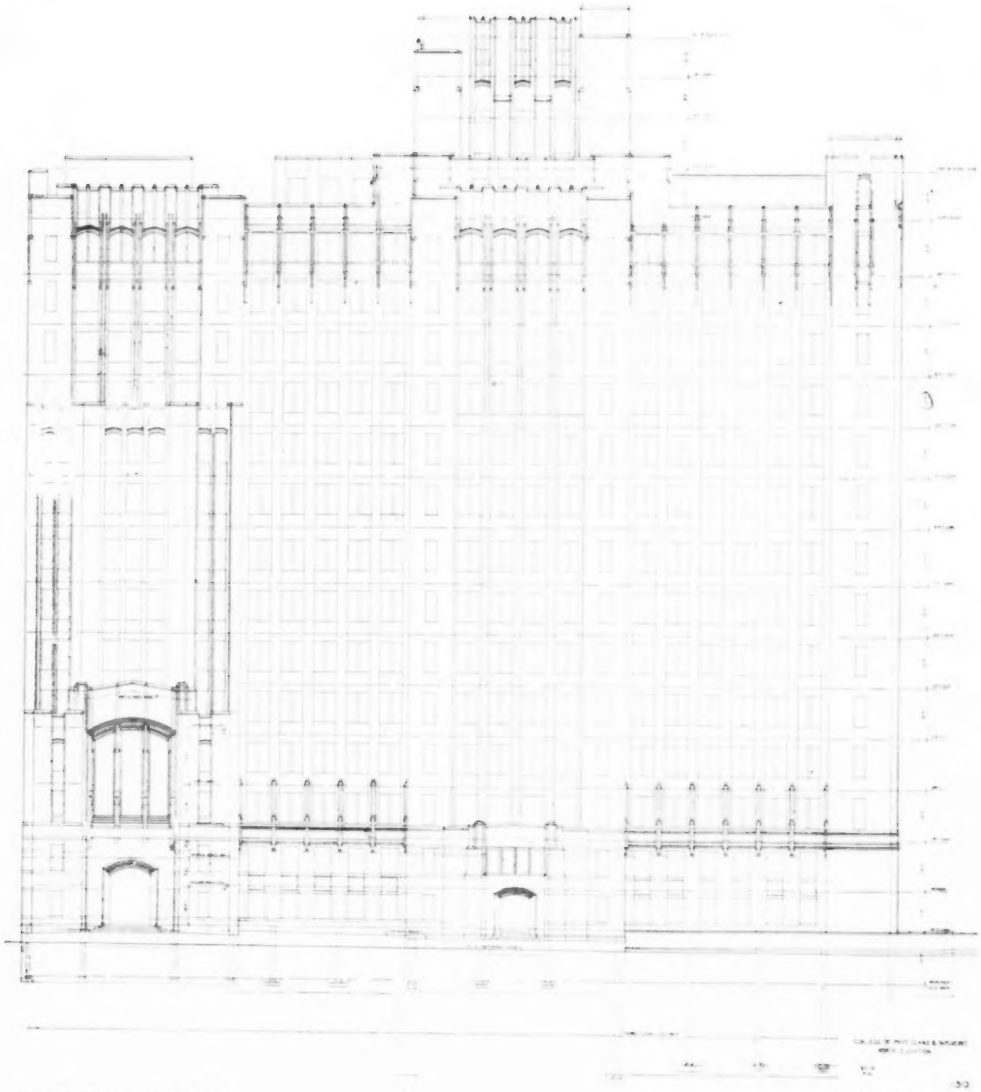
Recreation Roof and Exterior of Loggia
COLUMBIA-PRESBYTERIAN MEDICAL CENTER
James Gamble Rogers, Architect

building has been designed with care, skill and insight so that it shall combine the best features of more than one hundred and twenty modern hospitals which have been the subjects of special and deliberate study. "Under the direction of the Joint Administrative Board, representing the two institutions, the plans have been evolved by James Gamble Rogers, architect of the Harkness Memorial Quadrangle at Yale. [See ARCHITECTURAL RECORD, September, 1921, Vol. 50, pp. 163-182.] They are dominated by one major consideration—the welfare of the patient." And the Medical School building will be so completely equipped for the training and education of students and for research by those who devote themselves to particular branches of the profession that here the dominating major consideration may seem to be—with good reason—the welfare of medical science.

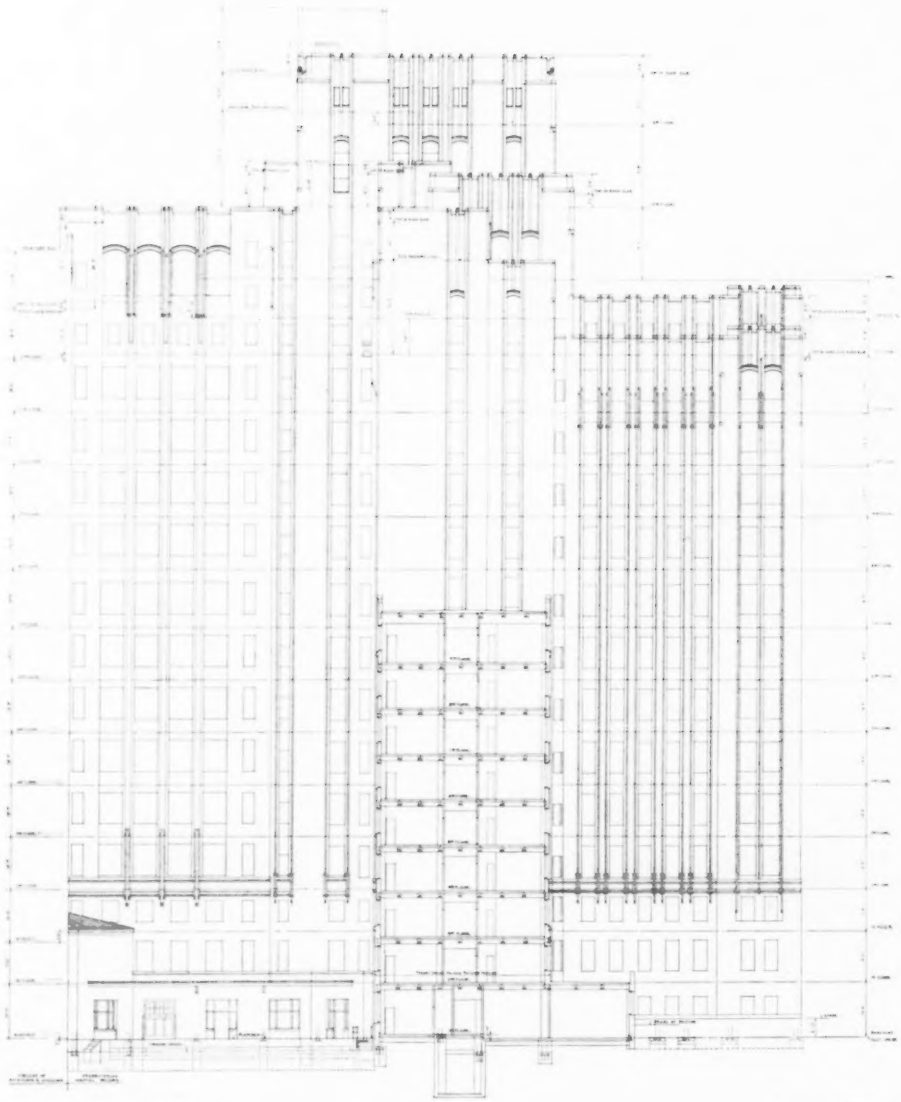
The hospital section will comprise at least ten, or eventually perhaps eleven ward-floors, each of which will be a small-scale hospital with three twelve-bed wards, two five-bed, two four-bed and ten one-bed rooms; also with three solaria or sun-parlors, a treatment room for minor operations, two diet kitchens and a clinical laboratory. The bedrooms, small but cheerful, will have the advantage of direct sunlight every day in the year. At the entrance to the twelve-bed wards there will be a station for a nurse, through whom friends may have direct access to patients or receive reports of their condition by telephone. The ideal which is now in a fair way to be realized has been expressed as follows: Picture a modern one-story hospital, containing in all sixty-four ward beds, with its own operating staff, equipment, sun-parlors, minor laboratories and dietary arrangements. Place ten or more of these complete units one above another, and on the uppermost "a floor containing eight operating rooms, anæsthetizing rooms, and an operating amphitheatre. Still above, place a shallow mezzanine floor for visitors and students; and then add quarters for the house and administrative staffs, a gymnasium and a roof-garden. A private-patient wing adjoining completes the picture of the new Presbyterian, combining the advantages of a small intimate hospital with those of a great metropolitan institution." . . . Certainly those sentences are worthy of preservation just as they stand, although no mention is made of the first floor above the ground, the important administrative floor. The three solaria on each of the ward floors, affording room for one-third of the patients in that ward, will be features in an elaborate system designed especially for the advantage of convalescents, a system including two recreation roofs and several open-air loggias. The promise is given that every patient who is permitted to leave his bed will find comfortable, health-promoting surroundings to hasten his recovery. And the principle has been recognized, very wisely, that the welfare of the patient is in no small degree dependent on the welfare of the staff. Unusual attention, therefore, is being paid to that subject; and a suggestion which was entertained while this article was in preparation related to an Internes' Club, for which an expenditure of $100,000 might well be made, for the comfort and well-being of young physicians living at the hospital.

Progressive ideas have been characteristic of the Presbyterian ever since its foundation, as a new kind of hospital, a pioneer, in 1872; and so we find without surprise that the modern way of looking at things is exemplified, in the plans for the Private-Patient Pavilion, by the provision of living quarters for visitors. The ground floor of that pavilion will have a number of rooms which will be furnished and rented exactly as though they were rooms at a good hotel, the purpose being, of course, to enable friends of a patient to live in comfort as near as possible to the object of their solicitude. The estimated cost of the pavilion is $1,436,700. The annual profit (estimated at more than $40,000) will be used to meet the cost of free work in the wards.

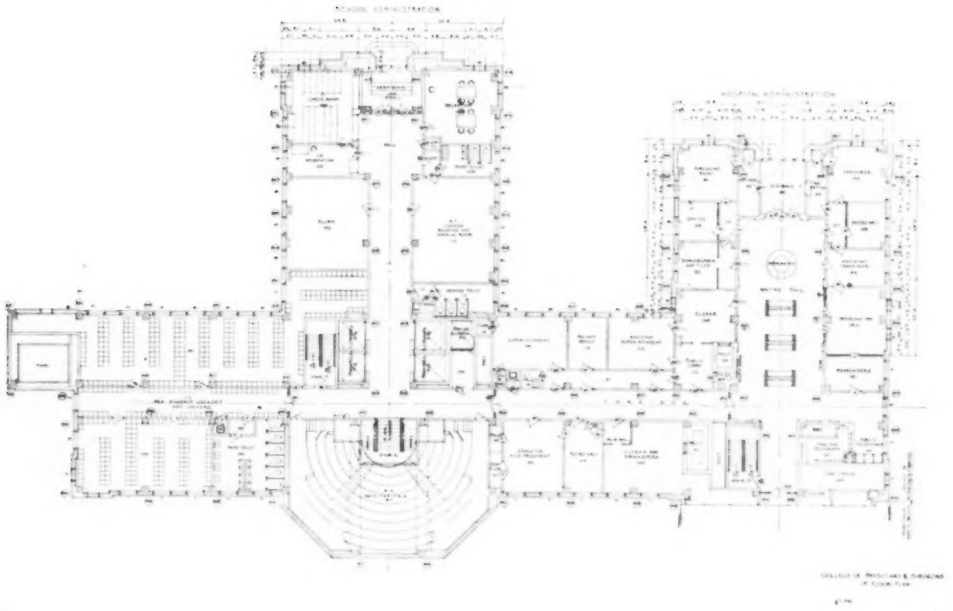
The Medical School, the general hospital, and, no doubt, the special hospitals which have been mentioned, and which will be connected by covered passage-



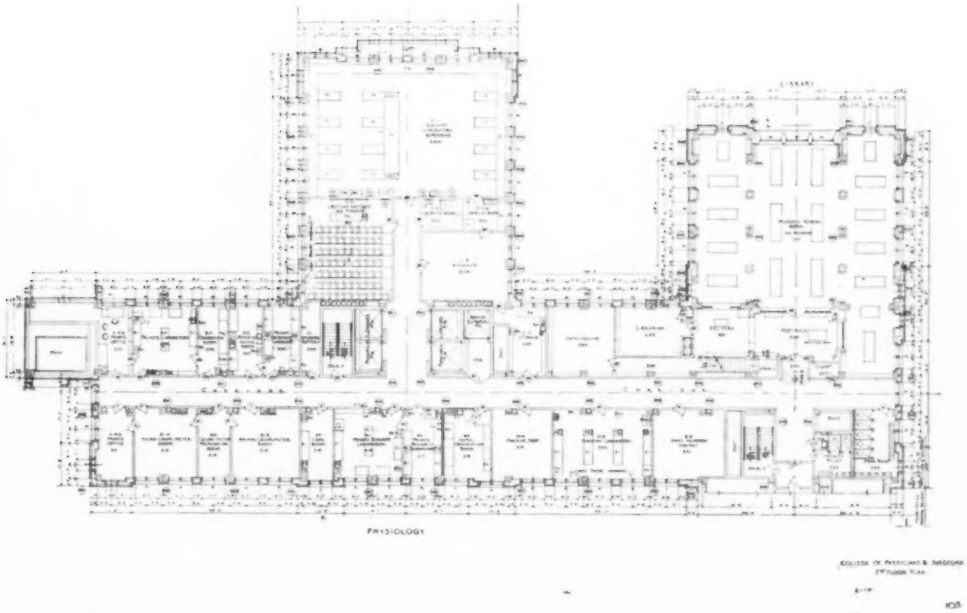
North Elevation, College of Physicians and Surgeons
COLUMBIA-PRESBYTERIAN MEDICAL CENTER, NEW YORK
James Gamble Rogers, Architect



West Elevation, College of Physicians and Surgeons
COLUMBIA-PRESBYTERIAN MEDICAL CENTER, NEW YORK
James Gamble Rogers, Architect



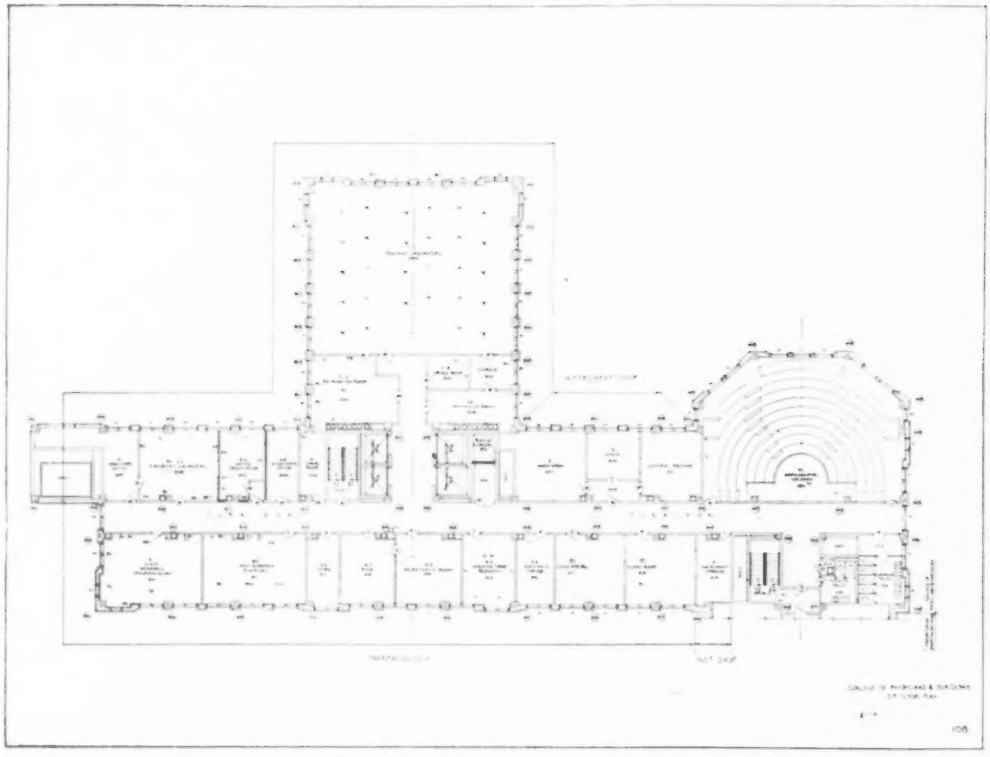
First Floor Plan, College of Physicians and Surgeons



Second Floor Plan, College of Physicians and Surgeons

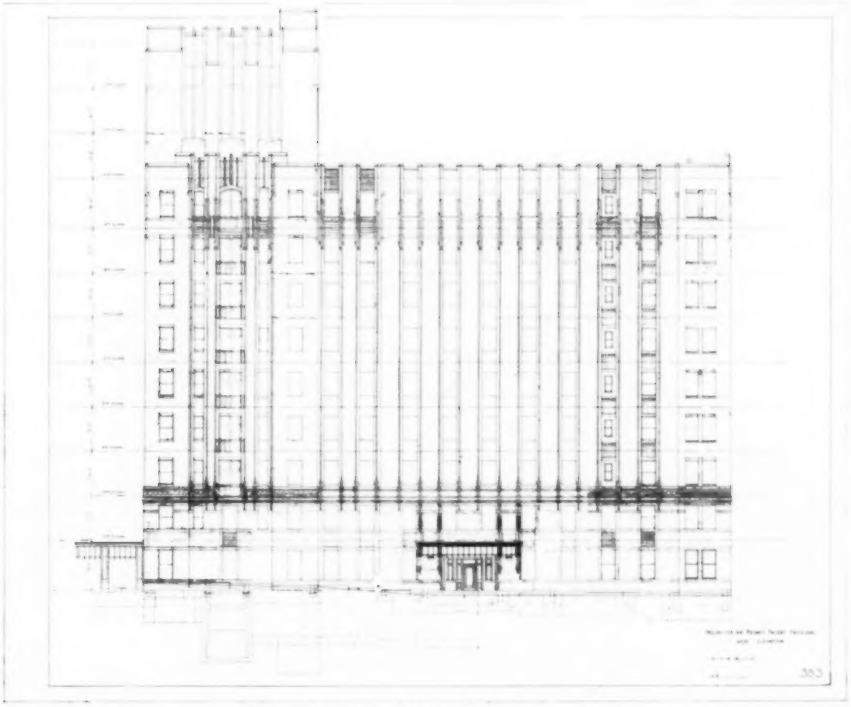
COLUMBIA-PRESBYTERIAN MEDICAL CENTER, NEW YORK

James Gamble Rogers, Architect

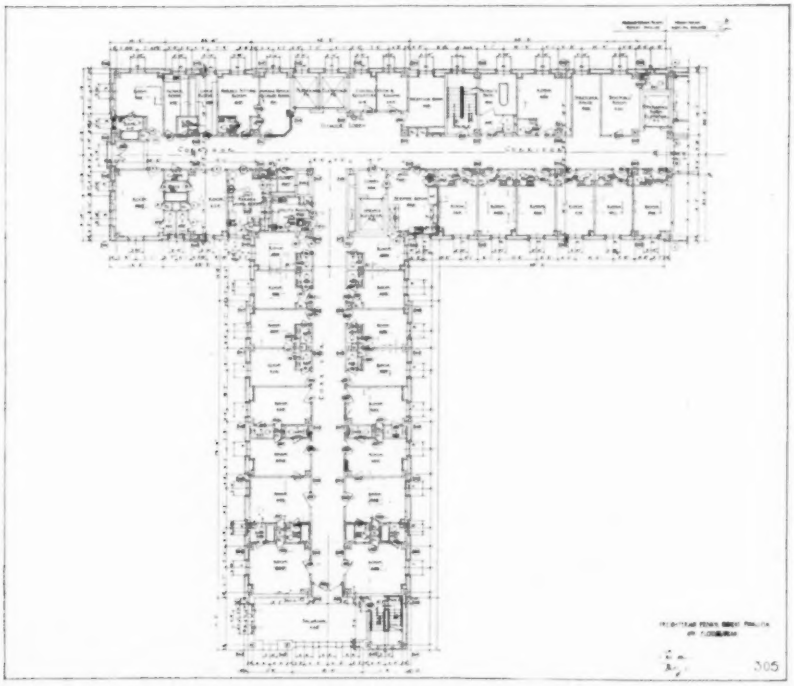


Plan of Fifth Floor, College of Physicians and Surgeons
COLUMBIA-PRESBYTERIAN MEDICAL CENTER, NEW YORK
James Gamble Rogers, Architect

ways with the main group-building, will share the power plant, heating, laundry, transportation and store-house facilities, and some of the laboratories. Obviously here is a prospect of economizing. It also seems desirable to arrange for an economical use of the ward-floors, a result which may be attained if, at first, patients can be cared for in, say, five floors, with a capacity of three hundred and twenty ward beds as compared with two hundred and twenty in the Madison Avenue-70th Street buildings. That seems reasonable. The other ward-floors may, then, be used for the temporary accommodation of the School of Nursing as well as of special hospitals. The future expansion of the general hospital will thus be provided for without involving any extravagant carrying charges meanwhile. In view of such economies, which the plans of construction make possible, the authorities think that the cost of conducting the new Presbyterian Hospital will compare very favorably with the present hospital budget: that there will be, in fact, an annual comparative saving of ten per cent, approximately. And this pioneer among hospitals will husband its resources so that the more generously it may realize the ideal of Marcus Aurelius —may find the joy of life in heaping good on good—even as hitherto it has been open, without restriction, to all; has sent its visiting nurses with necessary supplies into the poorer districts of the city, and from the slums has taken away, at least for a period of healthful recreation at Hill Top Camp, children who suffer from malnutrition, heart disease and tuberculosis; has attracted the support and the services of men and



West Elevation, Private Patient Pavilion

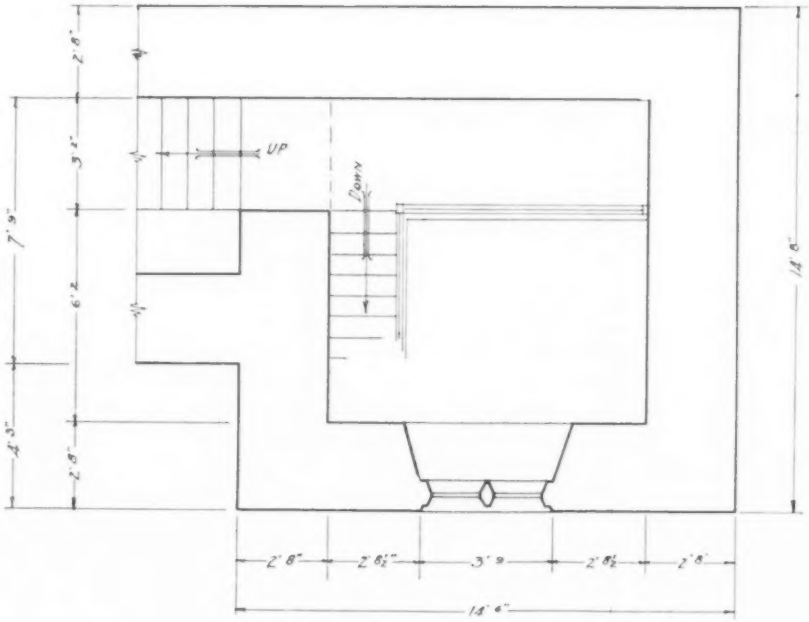


Plan of Fourth Floor, Private Patient Pavilion

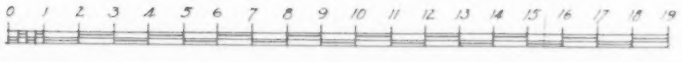
COLUMBIA-PRESBYTERIAN MEDICAL CENTER, NEW YORK

women of every faith. Finally, in association with Columbia and in this wisely-planned union of many organizations, each with its own fashion of heaping good on good, it has earned the chance to show what is worthy of the golden age of practical beneficence.

There remains not a bit of doubt as to the completeness of this striking new demonstration of the power which we have mentioned above—the power of convincingly good plans. Before the first of May gifts to the hospital brought down to easily manageable proportions the amount to be obtained by public subscription. On May 3 it was made known that the institutions which, up to that time, had decided to become the associates of the distinguished founders at the Medical Center were the following: The New York State Psychiatric Institute and Hospital; the Neurological Institute, now in East 67th Street; the Babies' Hospital, now at 55th Street and Lexington Avenue; the Sloane Hospital for Women; the Vanderbilt Clinic, now at 60th Street and Amsterdam Avenue, and (naturally) the School of Nursing connected with the hospital at Madison Avenue and 70th Street. On May 7th the Committees of the Presbyterian Hospital Building Fund Campaign received a report confirming the anticipated gift of $100,000 for a recreation roof—truly a vast *azotea* high above dust and noises of the city: level, tile-floored, with uncovered spaces where games can be played; with glass-enclosed loggias, one for convalescing men and one for convalescent women; with a gymnasium, sixty feet long and thirty-five feet wide, which may prove to be of use especially to young members of the hospital staff. Thus fulfilment in all respects becomes possible, the plan being really good and so strongly held in mind and in hand.



PLAN



Tower and Nave Windows

CHURCH AT STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND

Measured and Drawn by Robert M. Blackall

CHURCH OF STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND

The ENGLISH PARISH CHURCH AND ITS DETAILS

By
Robert M Blackall
Measured Drawings and Photographs by the Author

TOWER AND NAVE WINDOWS IN THE CHURCH OF STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND

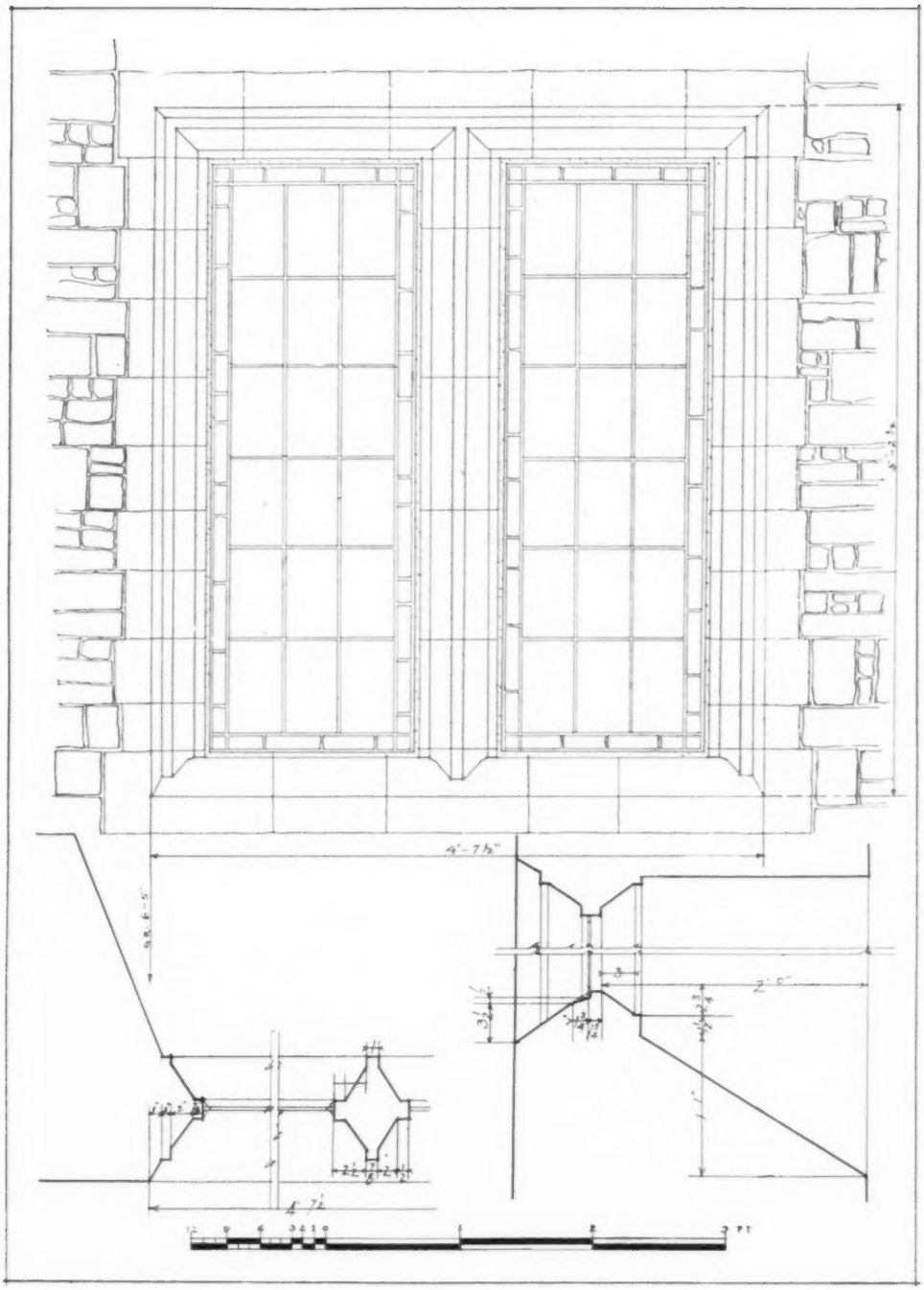
The two windows shown on pages 118 and 119 are good examples of the nave windows in the small churches of England; the one on page 118 is a two-window unit with the moulding flat and the other is a three-window unit with curved moulding in the mullions.

Pages 120 and 121 illustrate the simplest type of window used in the English parish church; the mullions have flat surfaces, there are no trefoils in the arch and the jamb repeats the mullion section; the glass is leaded and of plain color.

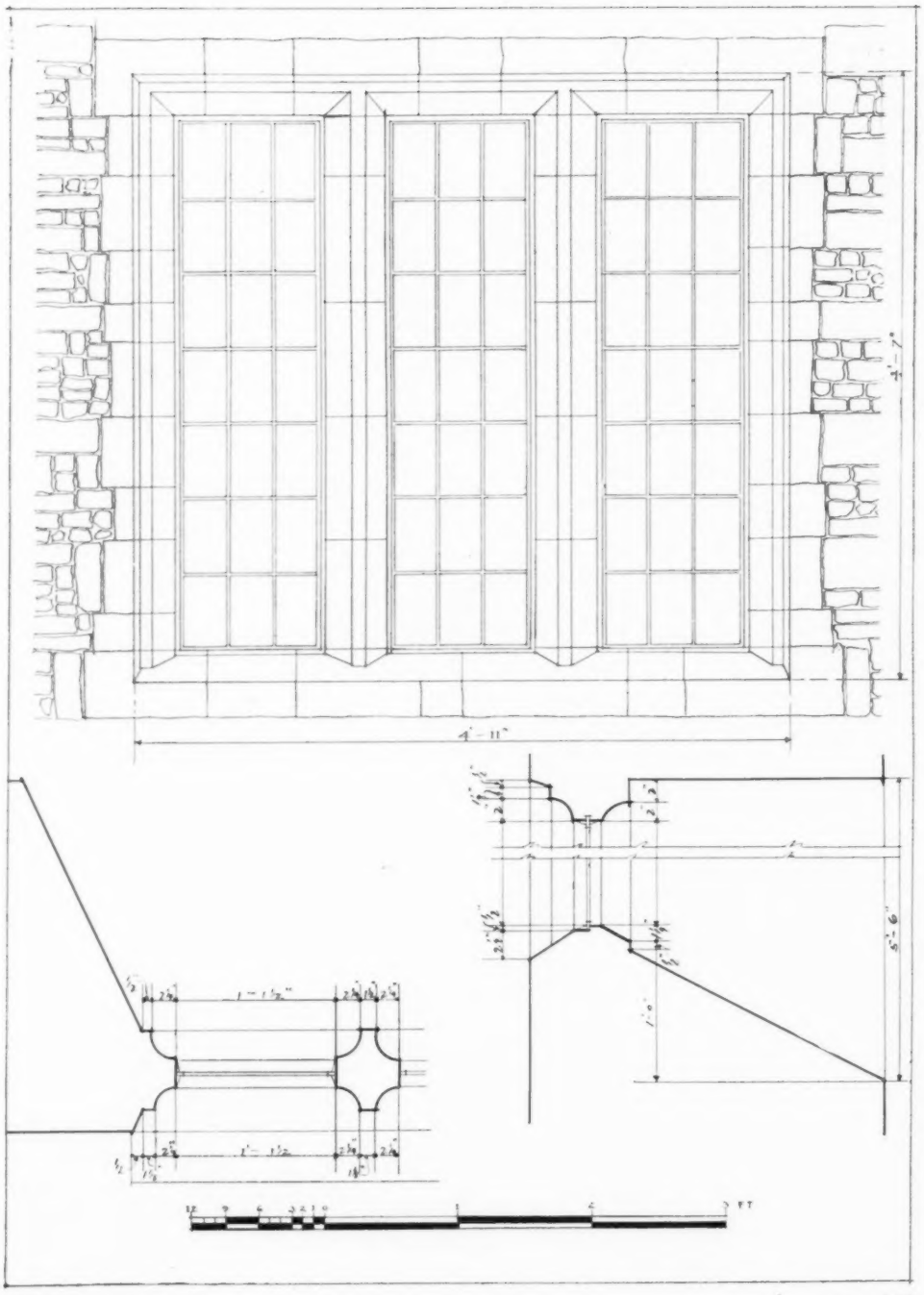
The material used in the building of this church is the light gray stone of the Cotswold district; the walls are of flint stone placed between larger blocks of this same Cotswold stone.

Very little stained glass is found in these small churches, unless it is a fairly modern memorial recently given to the church. This is due in a large measure to the glass having been destroyed, and also to the fact that these churches have been built by the people for use, and not, as is the case in France, as memorials.

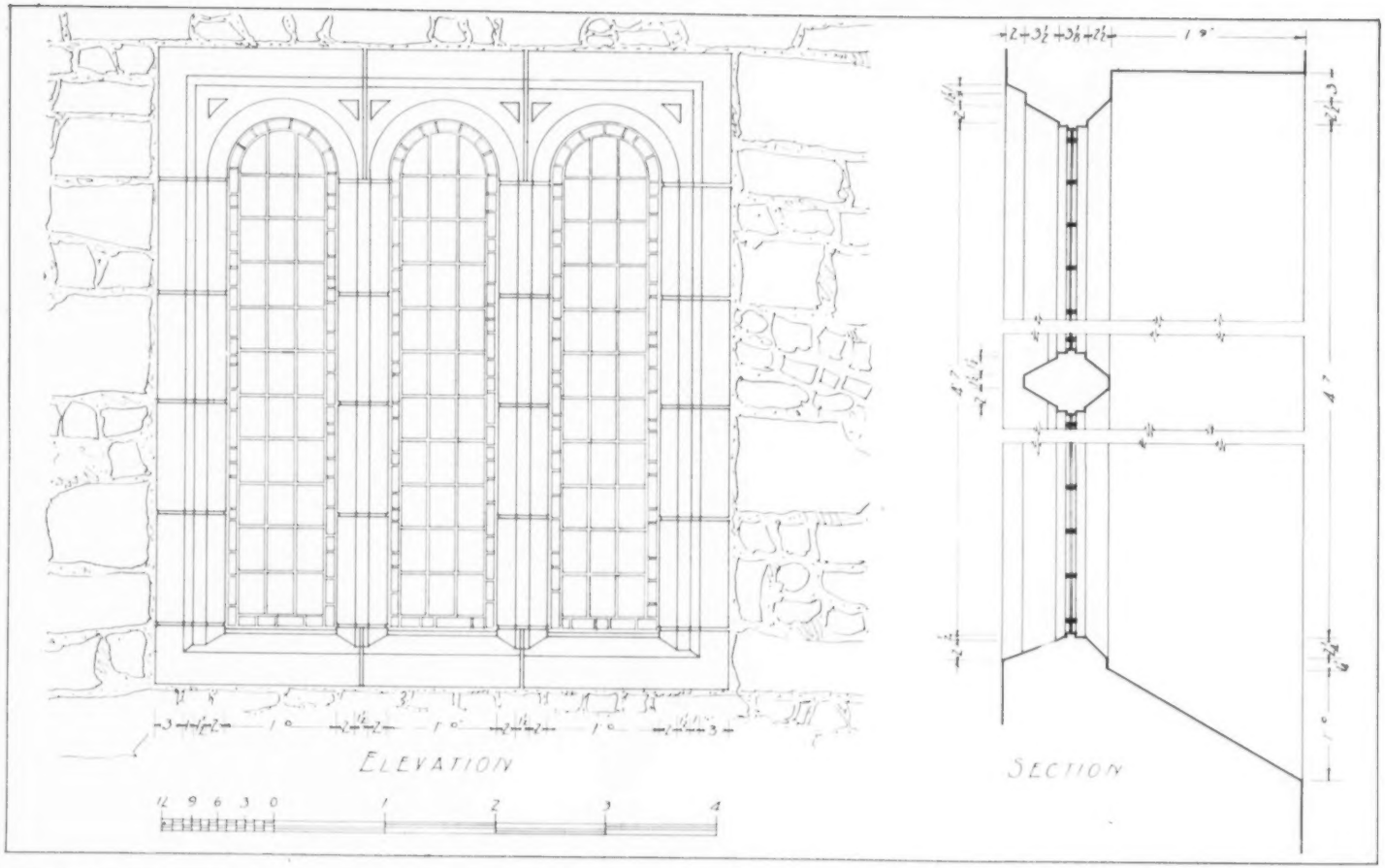
The usual custom is for the apse to be cared for by the clergy and the nave by the people. It is evident that the country churches have been built to serve people with small incomes, and that is one reason why they are built of material close at hand and are so extremely simple in detail.



Nave Window (Two-Window Unit)
CHURCH AT STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND
Measured and Drawn by Robert M. Blackall



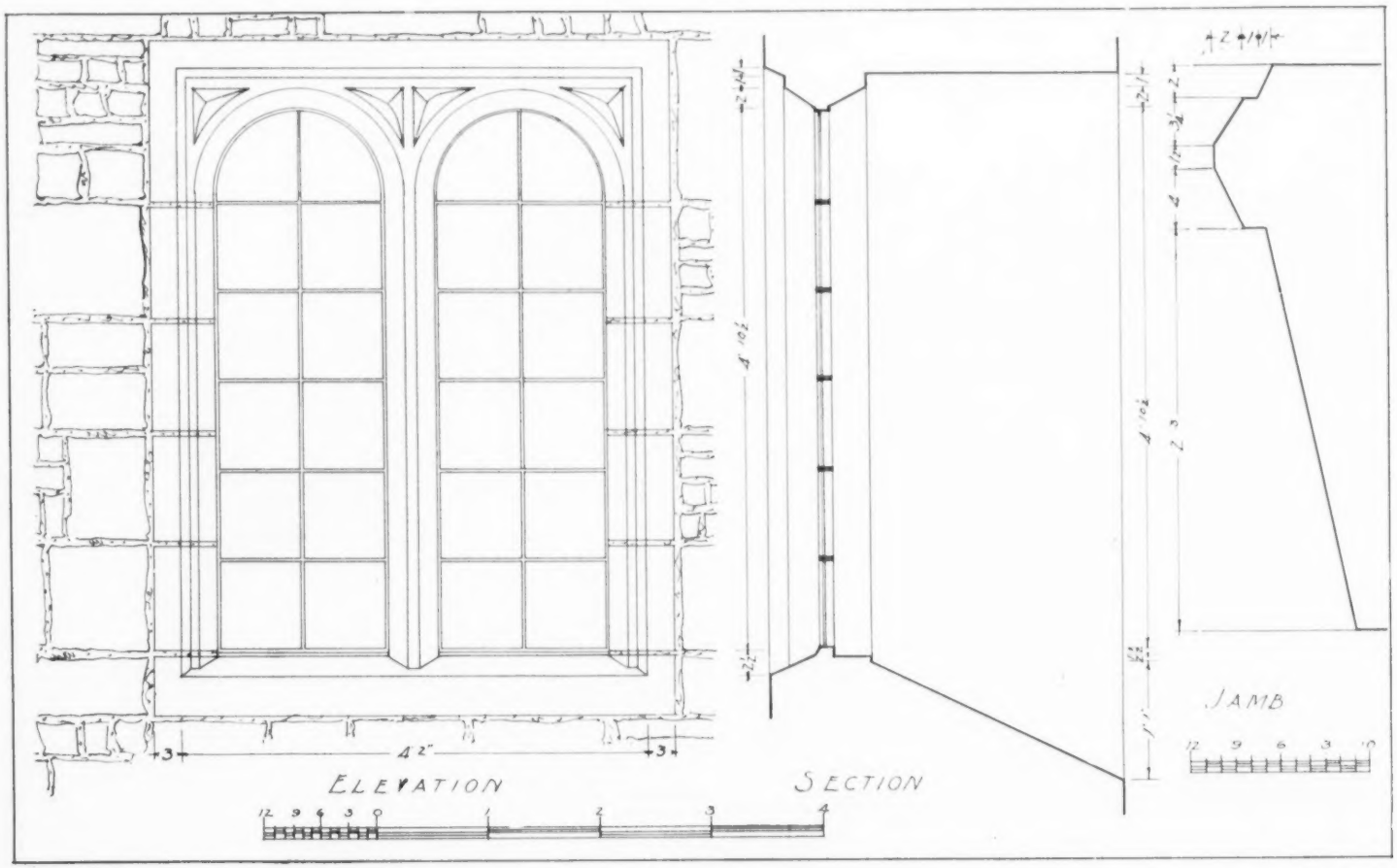
Nave Window (Three-Window Unit)
CHURCH AT STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND
Measured and Drawn by Robert M. Blackall



Nave Window

CHURCH AT STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND

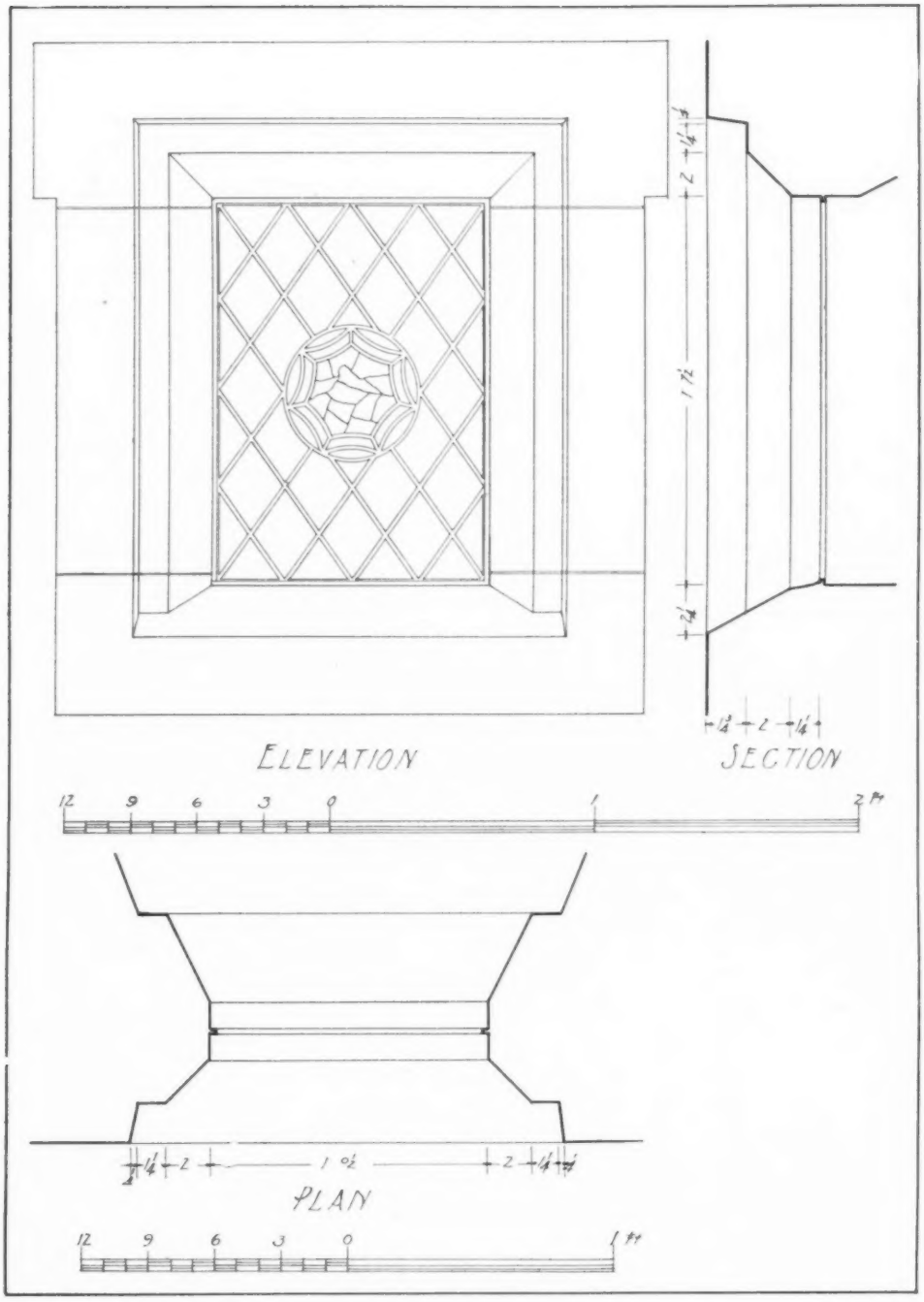
Measured and Drawn by Robert M. Blackall



Tower Window

CHURCH AT STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND

Measured and Drawn by Robert M. Blackall



Vicar's Window

CHURCH AT STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND

Measured and Drawn by Robert M. Blackall

VICAR'S WINDOW IN THE CHURCH OF STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND

This window, which dates from the fourteenth century, gives light to the Vicar's study at the rear of the church. Like the windows described in the foregoing pages, this is also an extremely simple one, relying on its stained glass for interest. In the center of the window is some highly-colored glass while the rest of the glass is plain and neutral in tone. An extremely effective result is thus obtained in enhancing the beauty of the central portion.

NAVE WINDOW IN CHURCH OF ST. EDMUNDS, SALISBURY, ENGLAND

The Church of St. Edmunds at Salisbury is of the fully developed three-aisle type, and we would naturally expect to find the windows typical of the late period, depending somewhat on the time that the full development in the plan was reached.

Thus we see the nave window is of the modified perpendicular style. Instead of the pointed window, which is found in the earlier periods, this type of window is somewhat flat—a characteristic of the perpendicular style. It is divided by three mullions.

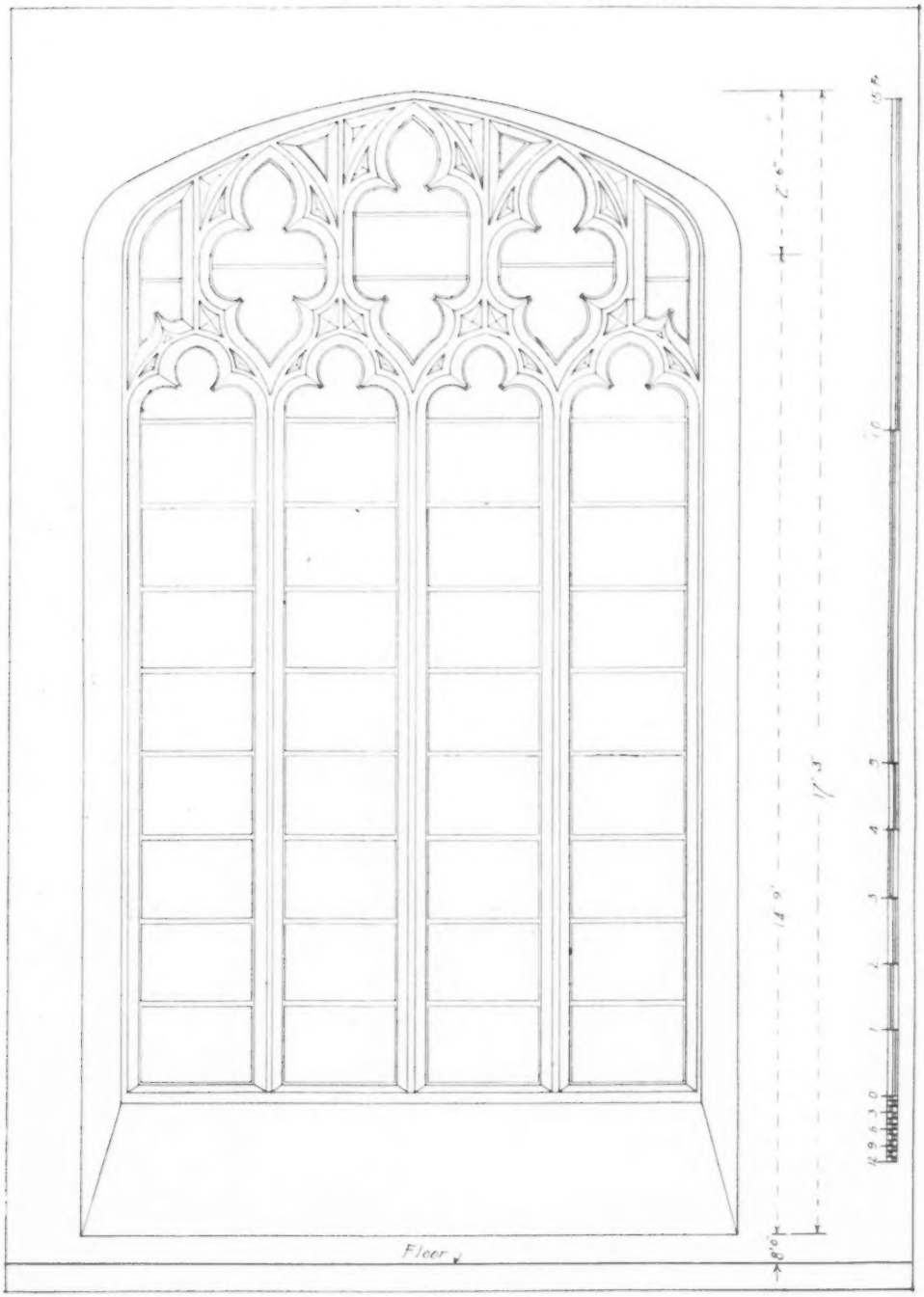
The width of the window inside is 9'-10"; the mullion is 5⅛" wide, by 1'-3" long, and these mullions are placed 2'-2" on centers. The depth of the reveal is 1'-3" on the inside, and the height of the lead in the glass is 15".

CHURCH OF ST. EDMUNDS, SALISBURY, ENGLAND

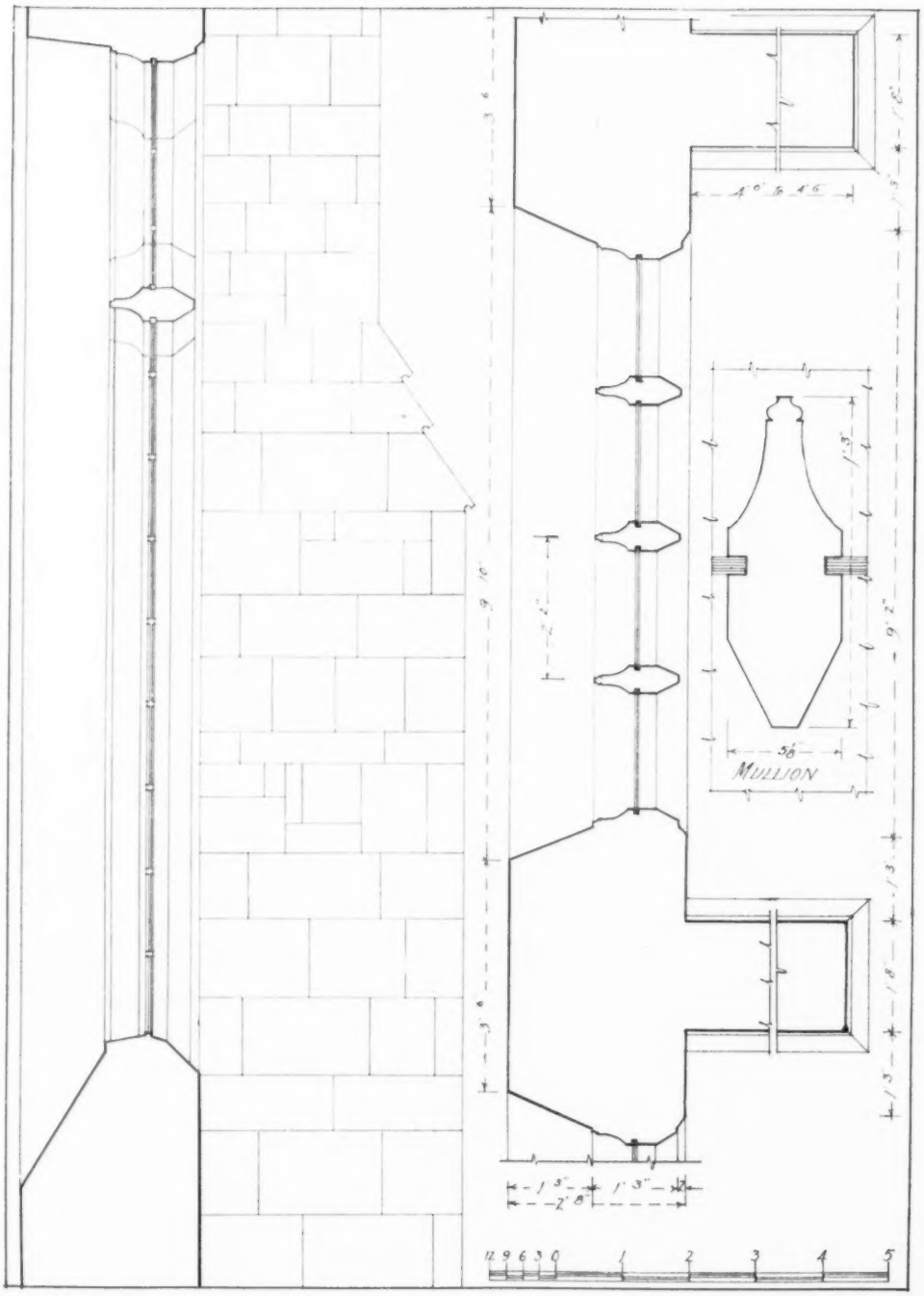
TOWER DOOR OF THE CHURCH AT STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND

The doorway of this church — built in 1711, as the statement over the door reads — has very pleasing proportions. It is the door leading to the tower, and, although in the center of the building, is rarely used, for in the English parish churches the side doorway is the usual entrance. As shown in the section on page 127, the bottom of the door is 6" below the level of the ground. In fact, most doorways in these small churches swing in, which, in the climate of this country, would be disastrous. In a great many of the churches one finds the level of the nave below that of the surrounding ground.

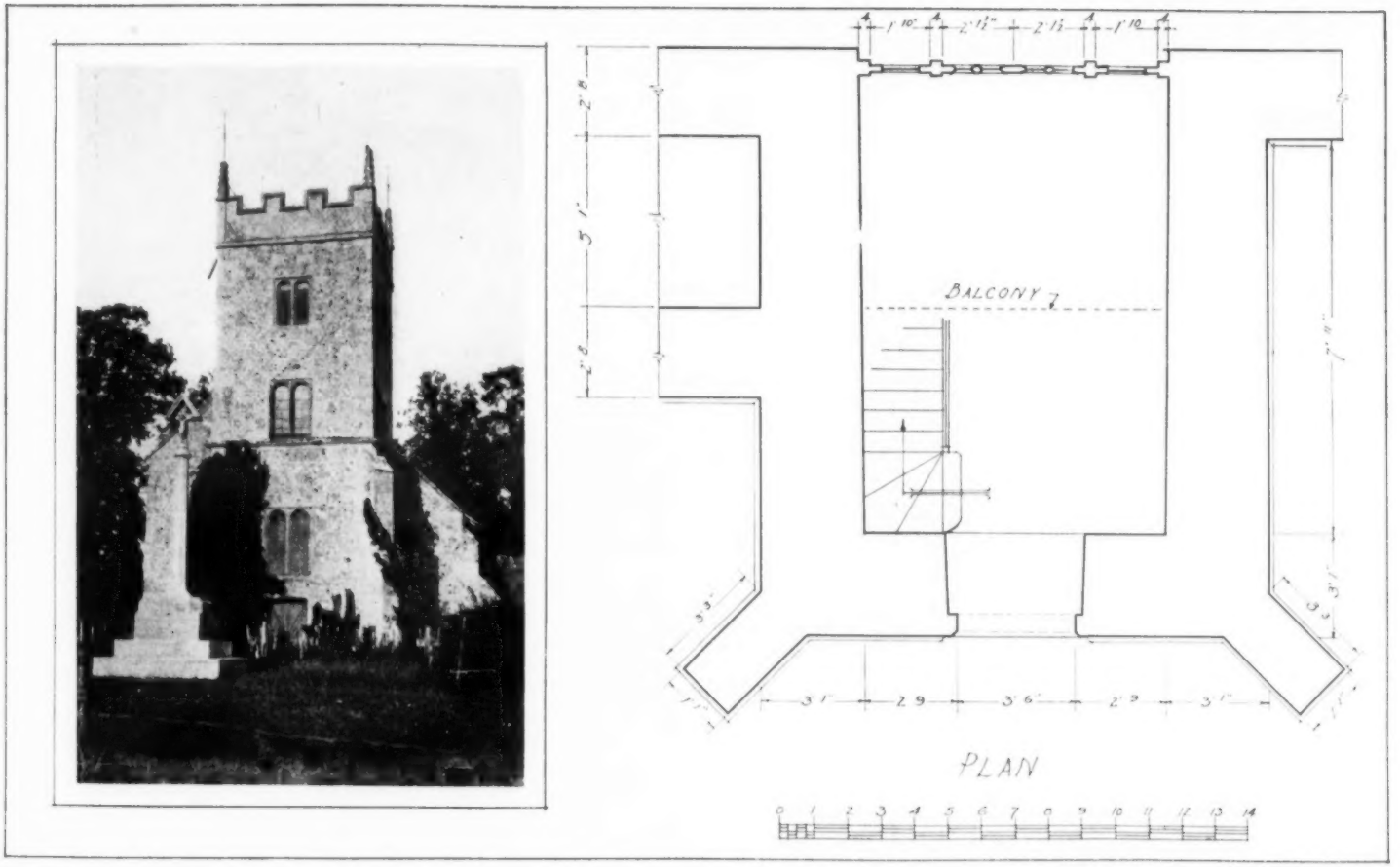
This door is approximately six feet high and three feet six inches wide.



Nave Window
CHURCH OF ST. EDMUND, SALISBURY, ENGLAND
Measured and Drawn by Robert M. Blackall



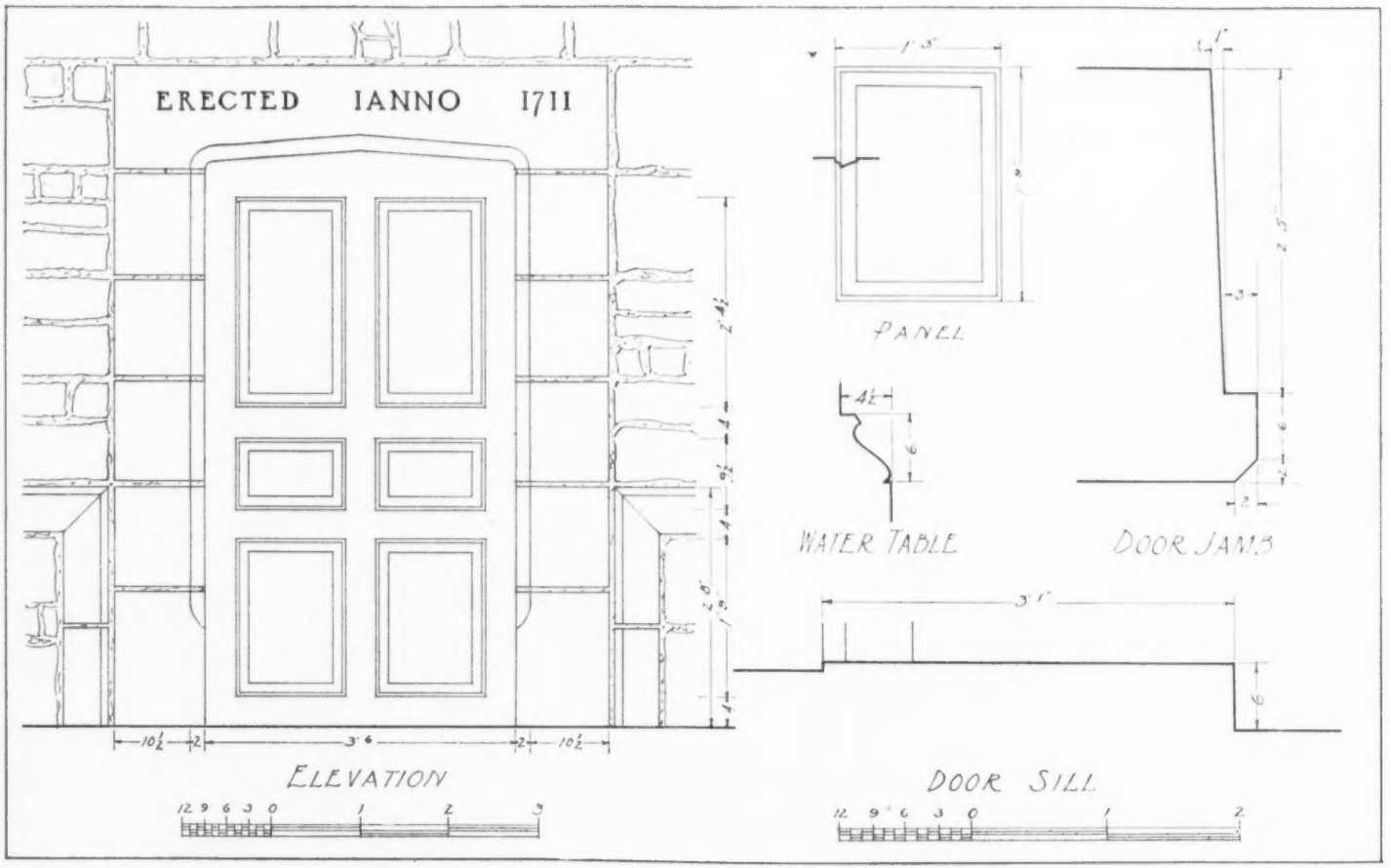
Nave Window
CHURCH OF ST. EDMUND, SALISBURY, ENGLAND
Measured and Drawn by Robert M. Blackall



Tower Door

CHURCH AT STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND

Measured and Drawn by Robert M. Blackall



Tower Door

CHURCH AT STRATFORD-UNDER-CASTLE, WILTSHIRE, ENGLAND

Measured and Drawn by Robert M. Blackall

CALVARY—Simple Cross and Altar
CHURCH AT PIQUEBOEUFS, BRITTANY

CALVARY, CHURCH AT LOCQUÉNOLÉ, BRITTANY

BRETON CHURCHES

By

Aymar Embury, II

PART II. THE CALVARIES

A FURTHER CHARACTERISTIC feature of Breton art which gives expression to the religious sentiment and love of mysticism inborn in this Celtic race, is the number of monuments known as the "Calvaries" erected throughout Brittany, though found nowhere else in France. These are representations of the Crucifixion, found usually in the churchyards of pilgrimage churches, but sometimes by themselves; they may be only a simple cross and altar like that at Piqueboeufs shown on the opposite page or a full panorama of the life of Christ like that at Plougastel-Daoulas on page 131. The cross at Piqueboeufs bears a singular resemblance to some of the Celtic crosses spoken of in Part I of this article, and, while of the crudest workmanship, is not without a certain naive dignity.

The Calvary at Plougastel is perhaps the most elaborate in Brittany. Erected in 1602-4, it is a sort of sculptural panorama of all the principal events in the life of Christ, and has long been an important pilgrimage shrine. That at Guéhenno, near Josselin, on page 130, is even more interesting in composition and with better sculpture. Behind this Calvary is an ossuary, where the bones

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THE CALVARY AND OSSUARY AT GUÉHENNO, NEAR JOSSELIN, BRITTANY

THE CALVARY AT PLOUGASTEL-DAOULAS, BRITTANY

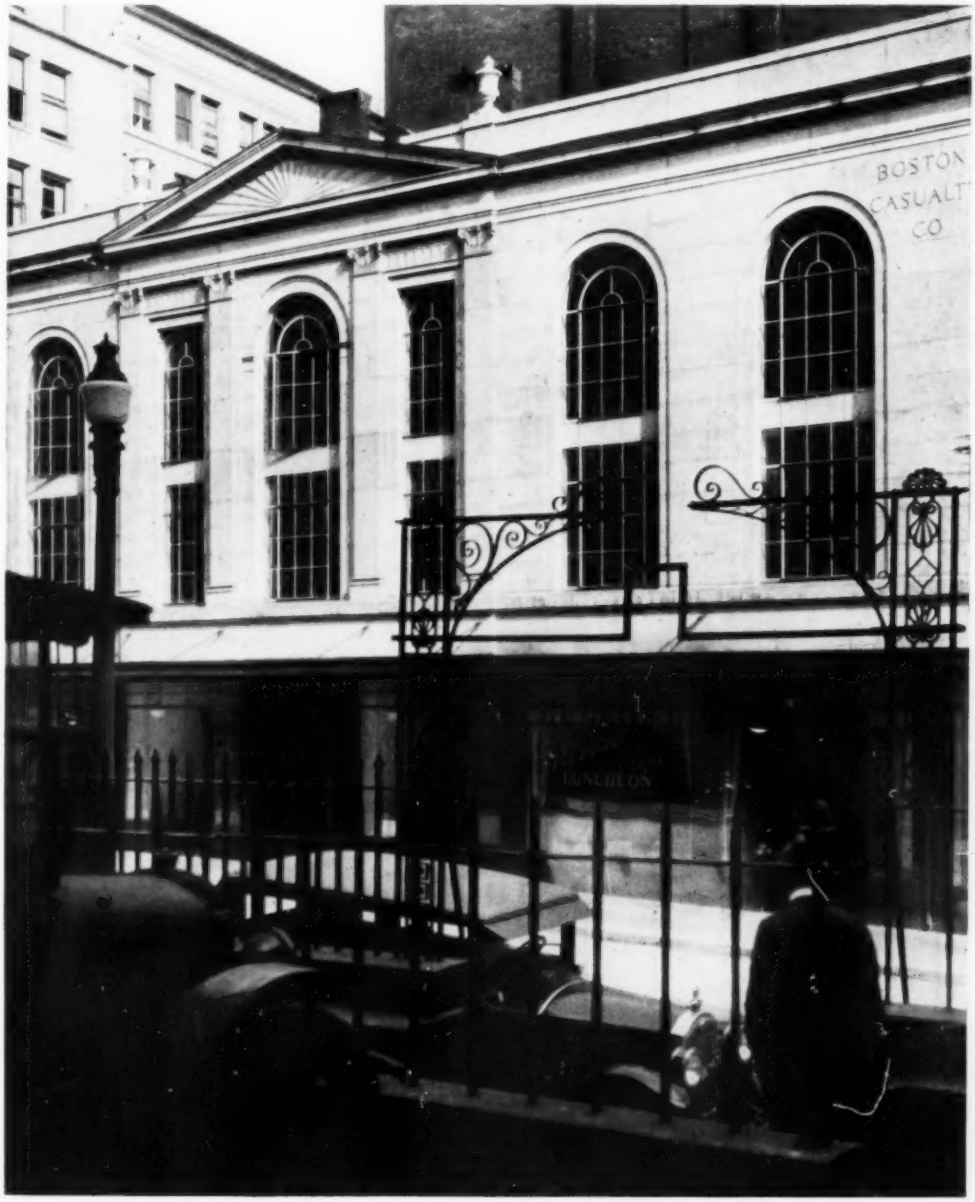
CALVARY, CHURCH AT VOUGAY, BRITTANY

of the parishioners are transferred from their graves after a certain time. The Calvary of the little church at Vougay is a simple cross in the church yard, but is unique in being surrounded by a high wall surmounted by delightfully naive figures of the saints and the Virgin (see above).

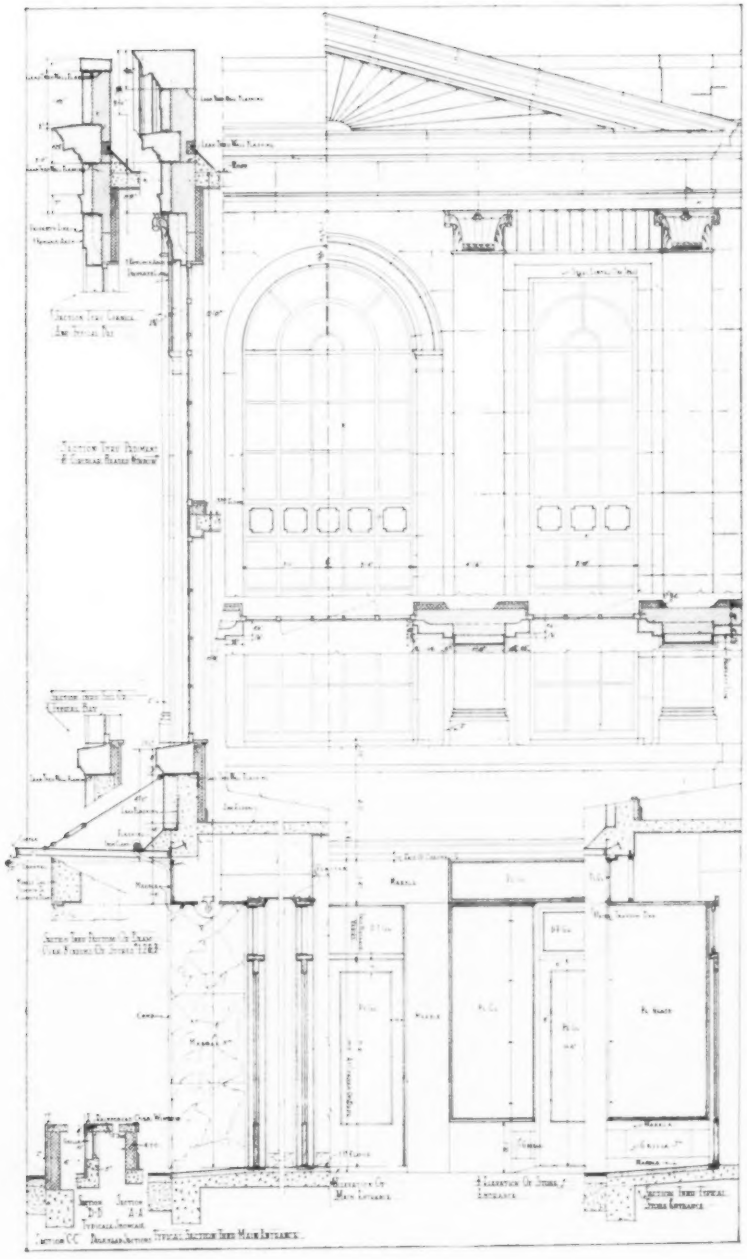
Perhaps the commonest type of Calvary is that used at Locquénolé (page 129) where a column supports a sort of three branched candlestick with figures of saints on the outside and a crucifix in the center. Some of these are very beautifully carved, and all are representative of that deeply religious feeling which pervades the common life of every Breton. There is a Calvary like this in the main street of the little town of La Trinité, just opposite a café called "Le Ressort des Quatres Evangelistes." I used to expect to see them there of a Saturday night.

PORTFOLIO

CVRRENT · ARCHITECTVRE



THE HUTCHINSON BUILDING, BOSTON, MASSACHUSETTS
(Erected on the site formerly occupied by the "Old Corner Book Store")
Ralph Harrington Doane, Architect



THE HUTCHINSON BUILDING, BOSTON, MASSACHUSETTS
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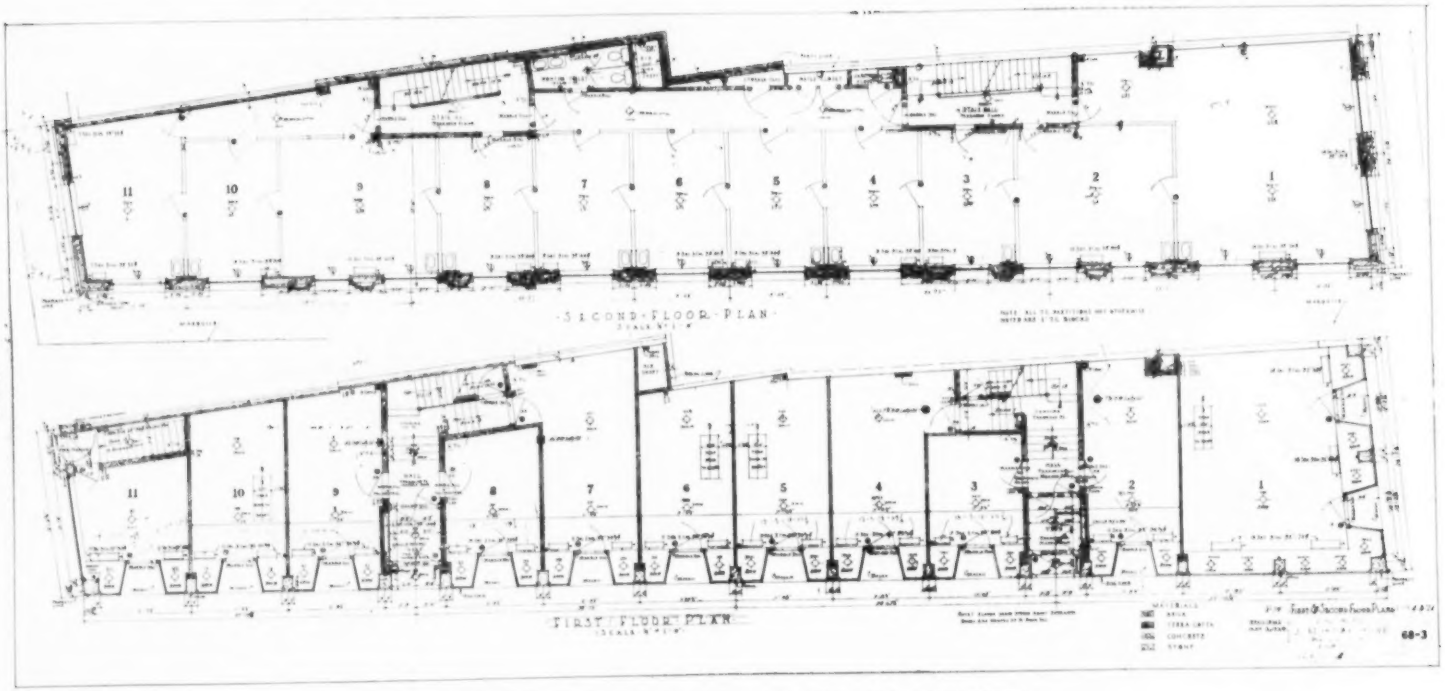

THE HUTCHINSON BUILDING, BOSTON, MASSACHUSETTS

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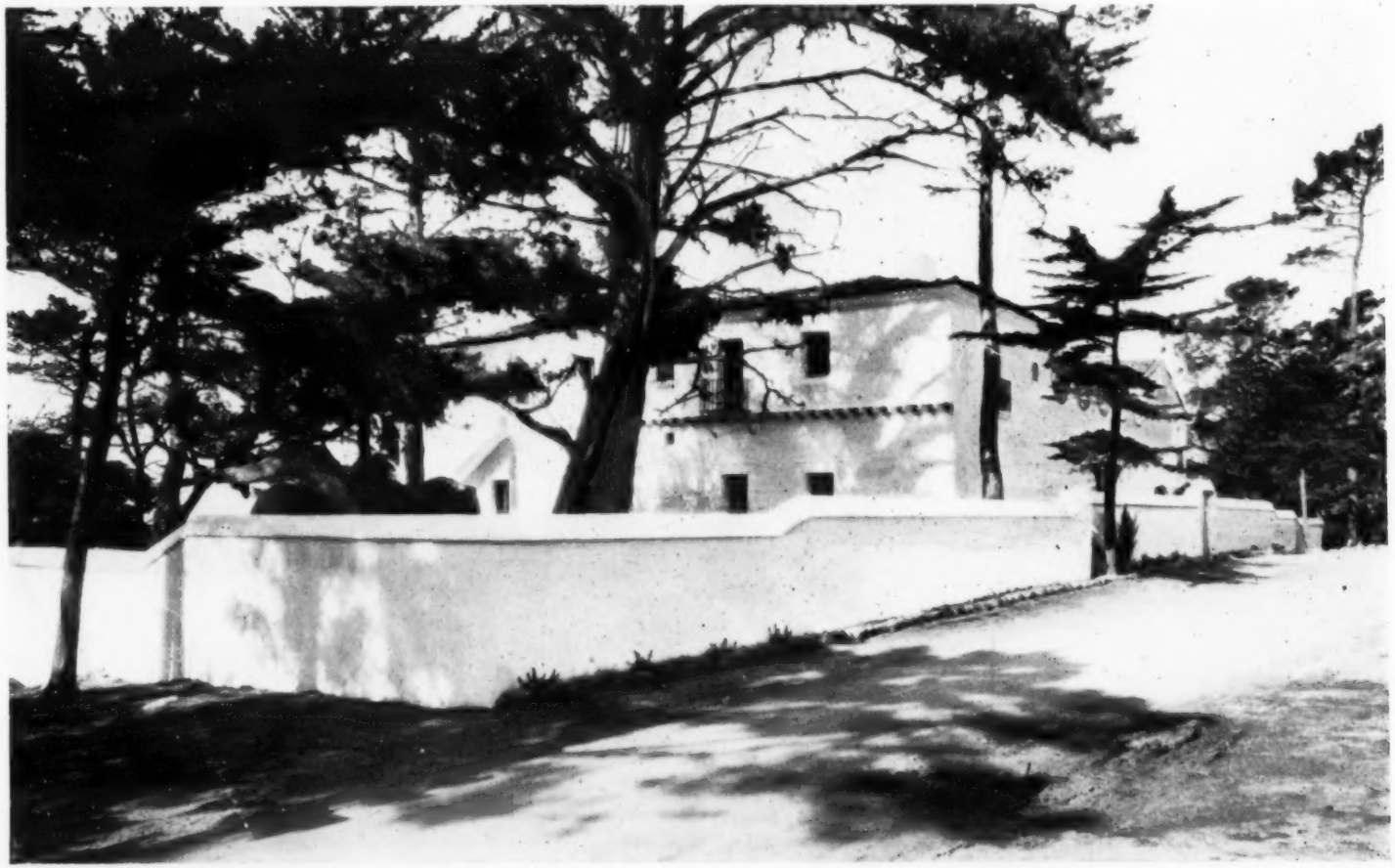
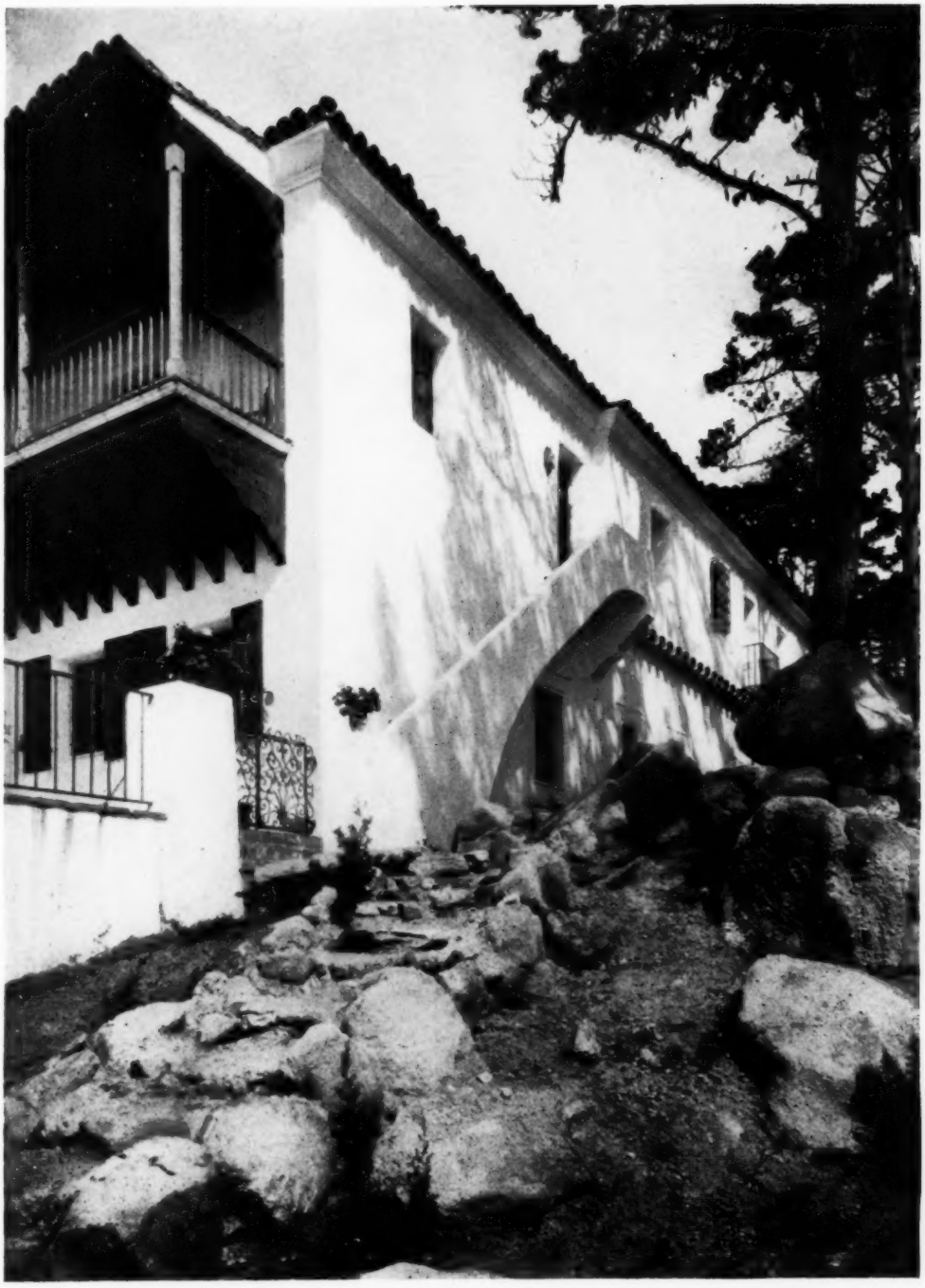


RESIDENCE OF MRS. ARTHUR VINCENT, PEBBLE BEACH, CALIFORNIA

George Washington Smith, Architect



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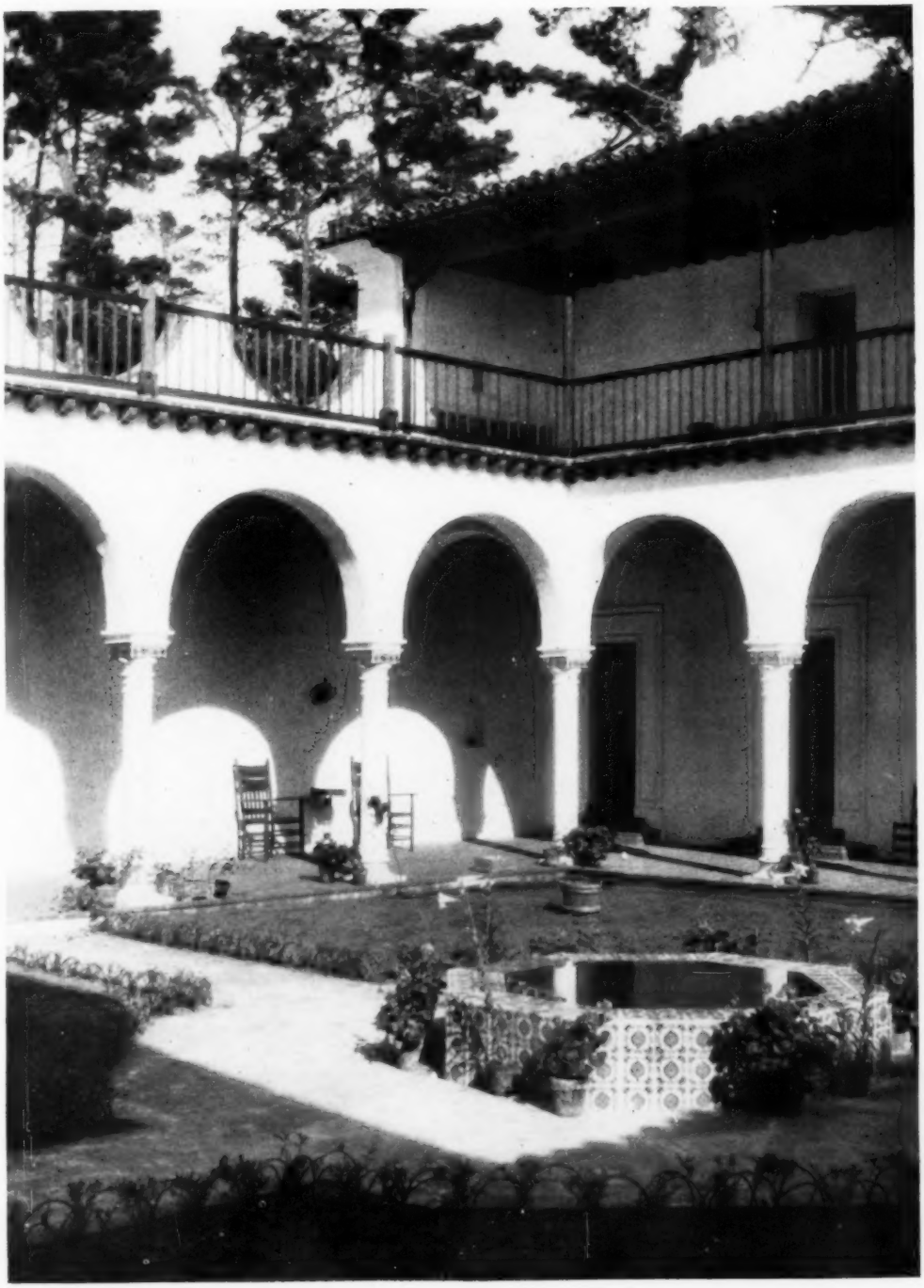

RESIDENCE OF MRS. ARTHUR VINCENT, PEBBLE BEACH, CALIFORNIA

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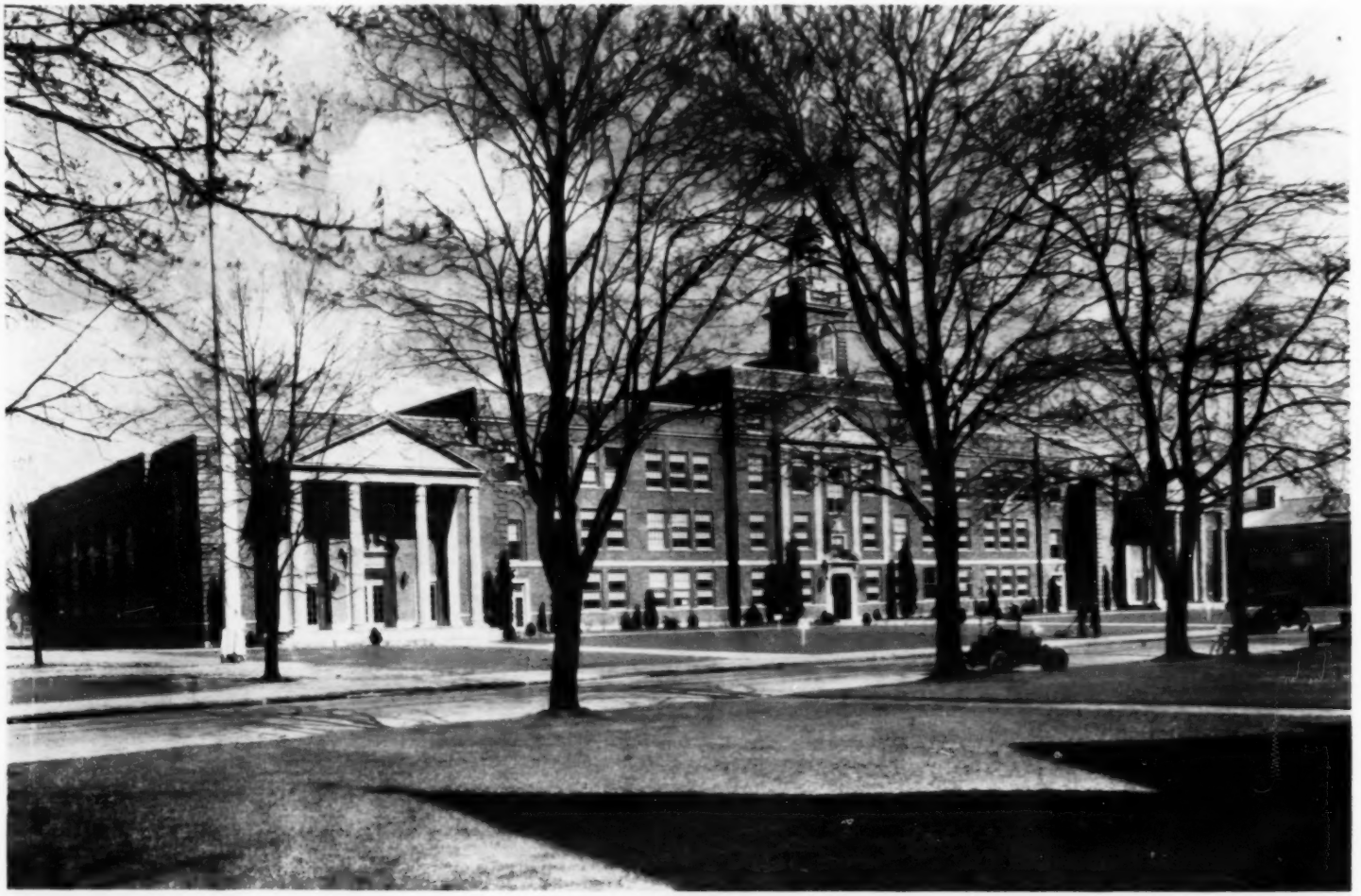
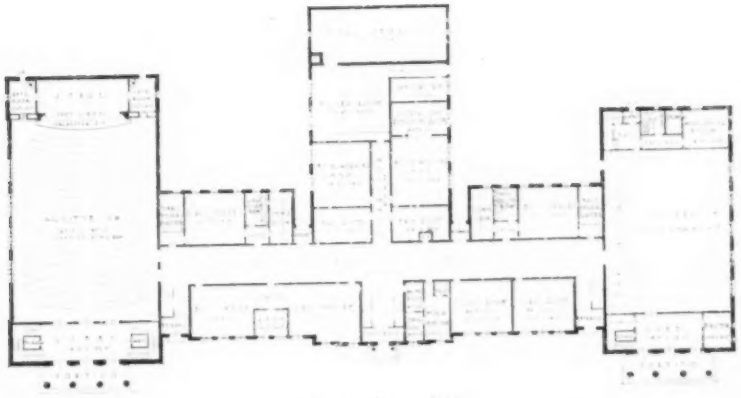
George Washington Smith, Architect

ARCHITECTURAL



THE HIGH SCHOOL, PATCHOGUE, LONG ISLAND, N. Y.
Tooker & Marsh, Architects



Front Façade

THE HIGH SCHOOL, PATCHOGUE, LONG ISLAND, N. Y.

Tooker & Marsh, Architects

THIRD FLOOR PLAN

SCALE: 1/8"=1'0"

HIGH SCHOOL AT PATCHOGUE, N.Y.

TOOKER & MARSH, INC.
ARCHITECTS
101 PARK AVE. N.Y.C.

Entrance to Auditorium
THE HIGH SCHOOL, PATCHOGUE, LONG ISLAND, N. Y.
Tooker & Marsh, Architects

RESIDENCE OF BENJAMIN WOOD, ESQ., NEW YORK
William Lawrence Bottomley, Architect

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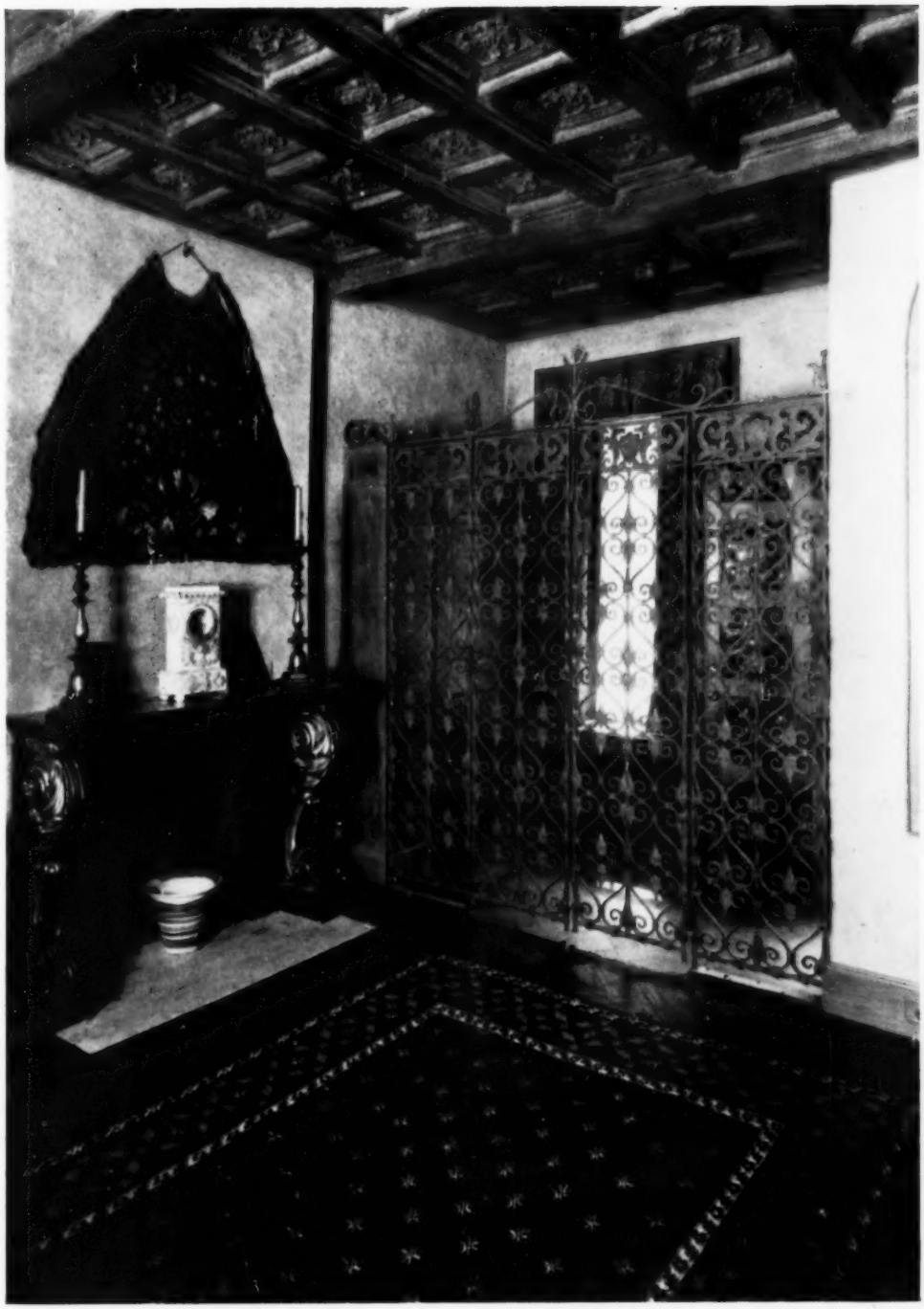


RESIDENCE OF BENJAMIN WOOD, ESQ., NEW YORK
William Lawrence Bottomley, Architect

SPANISH and CAIRENE HOUSES

By
Mildred Stapley

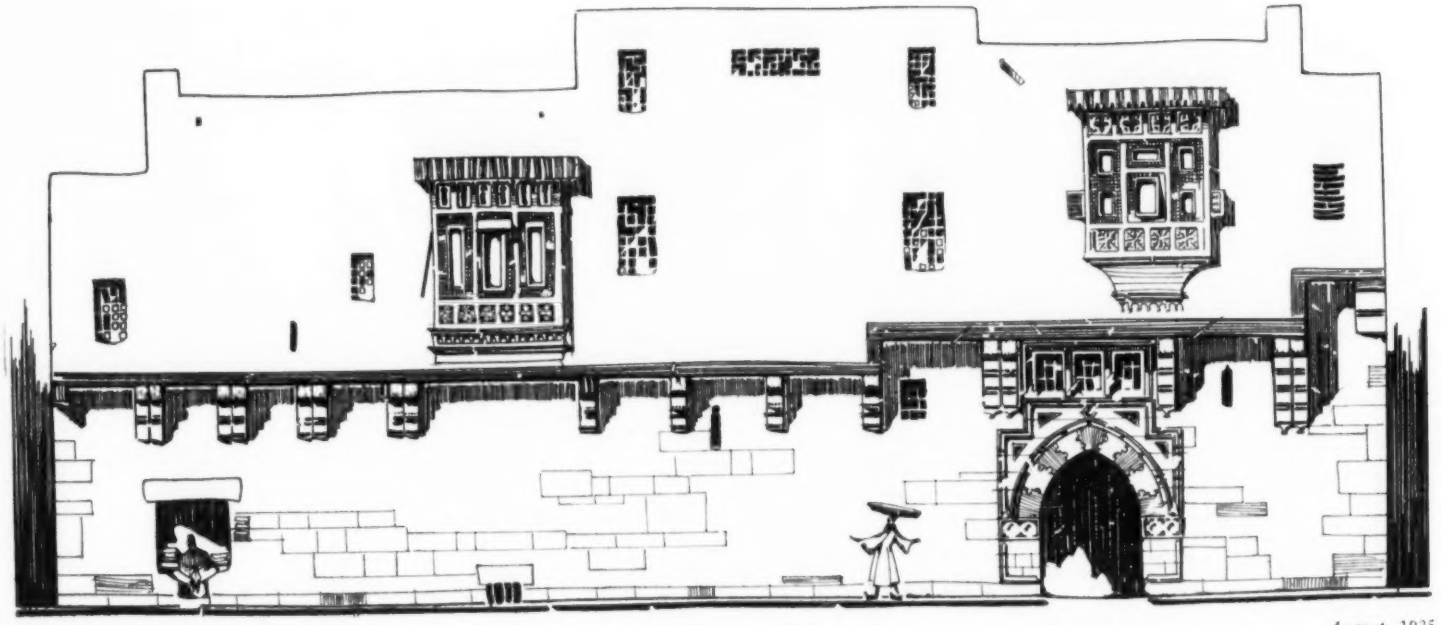
MUCH HAS BEEN written lately concerning the Spanish house, a structure that appears mainly because of its nonconformity to other European types; the exotic note, it is hardly necessary to state, is due to its Moorish derivation. Moors worked as artisans all over Christian as well as Mohammedan Spain, and the tradition they worked in was far more Asiatic than European. It had come in the wake of the Arab conquest, brought from Persia, Mesopotamia, Syria, Egypt. In other words the semi-civilized Arabs took from all the ancient peoples they conquered; and what they and their Moorish followers executed is called, with too much inexactitude, Arabian art. Better the term Mussulman or Mohammedan art; but this means merely that the adherents of the Prophet were the vehicle by which the antique art of the Near East (including Egypt) spread into Africa, Sicily, Spain and Constantinople.

One can therefore expect to find in all these countries a family resemblance among the structures that postdate the Mohammedan invasion; not only among the mosques but among the remains, and they are all too few, of domestic architecture. Naturally each country modified and adapted, but there are certain common features recognizable whether found in a sixteenth century house built in Granada for a Christian or a purely Mohammedan one in Cairo, Damascus, or Aleppo.

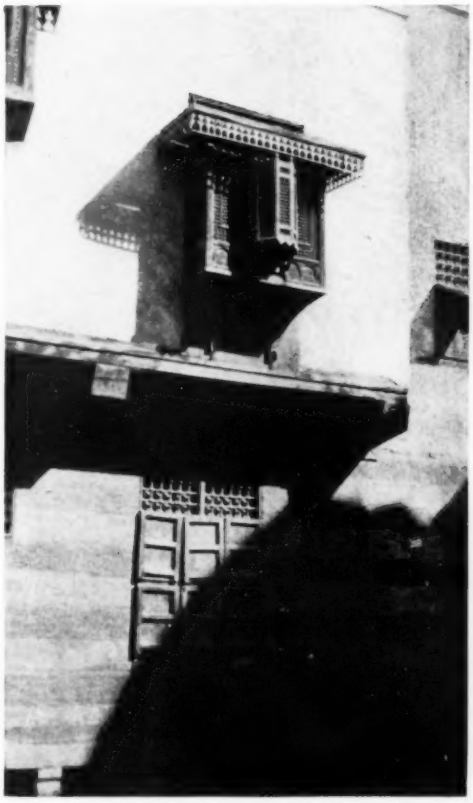
Above all between Spanish and Egyptian we may look for kinship. Egypt was the nearest and, culturally, the most important station on the Arabs' westward march towards Spain. It is not at all unlikely that they summoned craftsmen from there once they began building in Andalusia. Nor is it unlikely that whole communities of Egyptian Christians (Copts) had settled in Spain long before the Arabs came, especially of followers of Ario of Alexandria, for until the Visigothic king Reccared (586-681) renounced Arianism in favor of Roman Catholicism, Spain was the stronghold of that "heresy." Egyptian monks are known to have traveled as far as England and Ireland in the early centuries of Christianity. However, it is not necessary to prove the presence of Egyptian craftsmen in Spain; the Arabs held the Nile country, and it was a great school of art for them. From there they carried motifs and methods to implant in west North Africa and Spain.

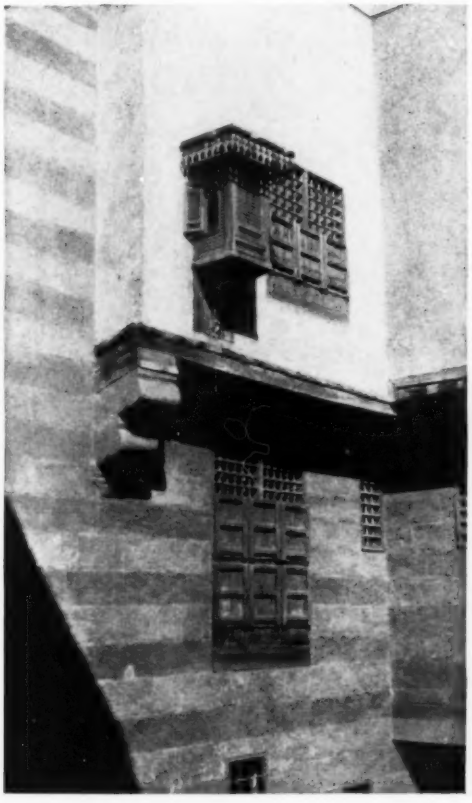
Not only the Arabs but all who had previously invaded and conquered Egypt —Persians, Greeks, Romans—found in the land a highly skilled indigenous class of artisans, descendants of the greatest builders of antiquity. Egyptians early and fervently and quite entirely embraced Christianity, and their churches built soon after the fourth century and influenced by Byzantine and Syrian currents had small masonry domes, half domes, and barrel vaults. There is even a case extant of a carefully constructed barrel vault of wood. For carved and painted woodwork the Egyptians had a veritable passion dating back into remote antiquity, and the primitive Coptic churches appear to have been plentifully embellished with decoration of this character.

For about two hundred years after the conquest the Mohammedans showed but little desire to build; using the monuments at hand. When at last they began to have architectural ambitions they used not only Copts but also Persians and Syrians to do the work; out of these various importations, plus whatever



THE BOOKBINDER'S HOUSE, CAIRO (1637)





THE BOOKBINDER'S HOUSE (1637)

Windows on the court, with *mushrabiyehs* and paneled shutters

Bay window overlooking the court, supported on typical Arab corbels. Alternate red and white stone courses

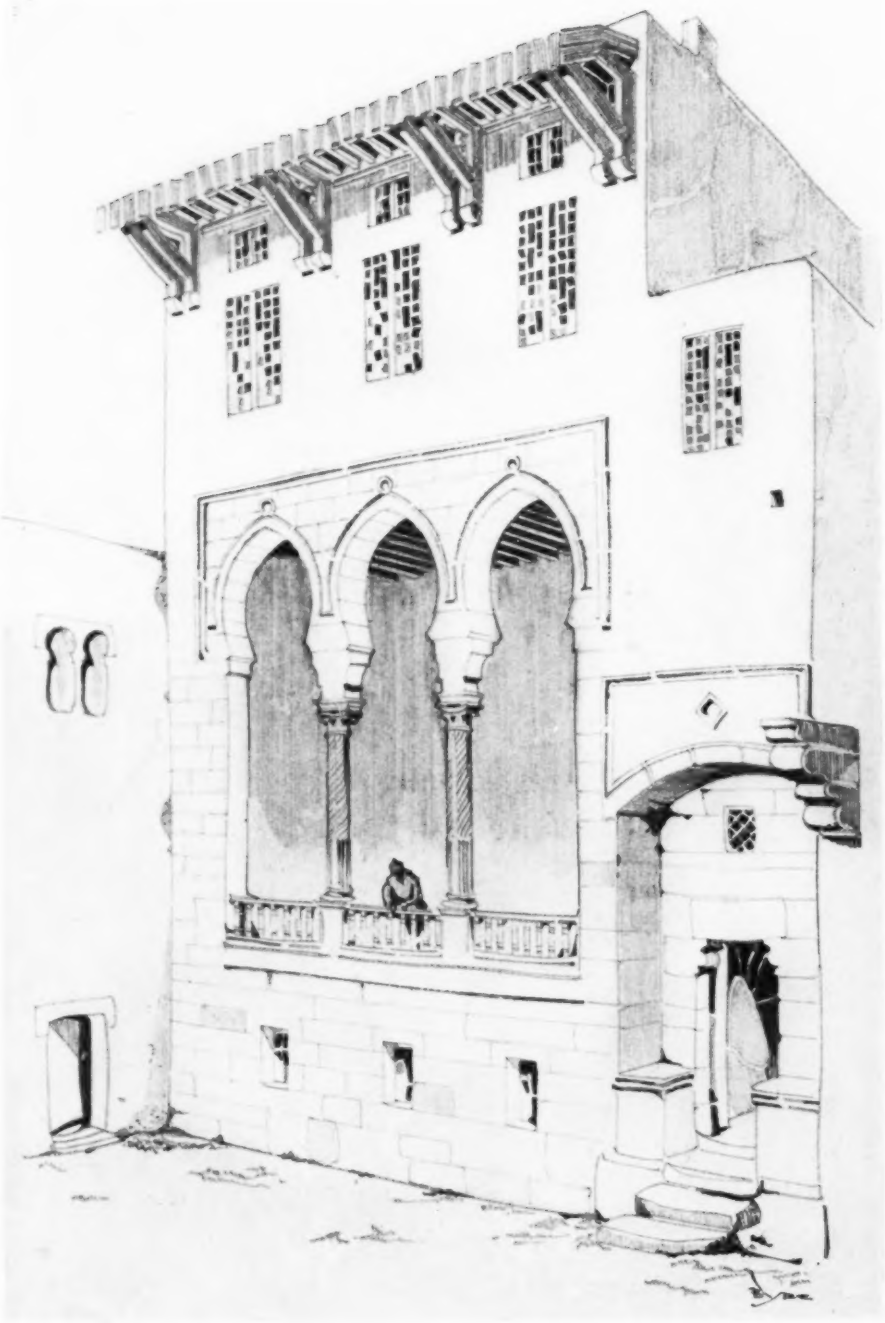
original elements the ruling class, the Arabs, infused into it, was compounded what is called Mohammedan art.

Cairo became the Mohammedan metropolis after Bagdad and Cordova had successively languished. Its rulers built splendid mosques and palaces, and its merchants, luxurious dwellings. Of the period of its zenith, the fourteenth century, there is not much to be seen except the mosques, whereas a fair number of houses are standing, whole or in part, that might have been built in the sixteenth and seventeenth centuries. One of the best preserved, popularly known as the Bookbinder's House, is as late as 1637; on the other hand, one is constantly coming upon old doorways, round arched and with dog-tooth extrados mould, that recall Romanesque churches of medieval Spain or France, and that may date from Cairo's great period.

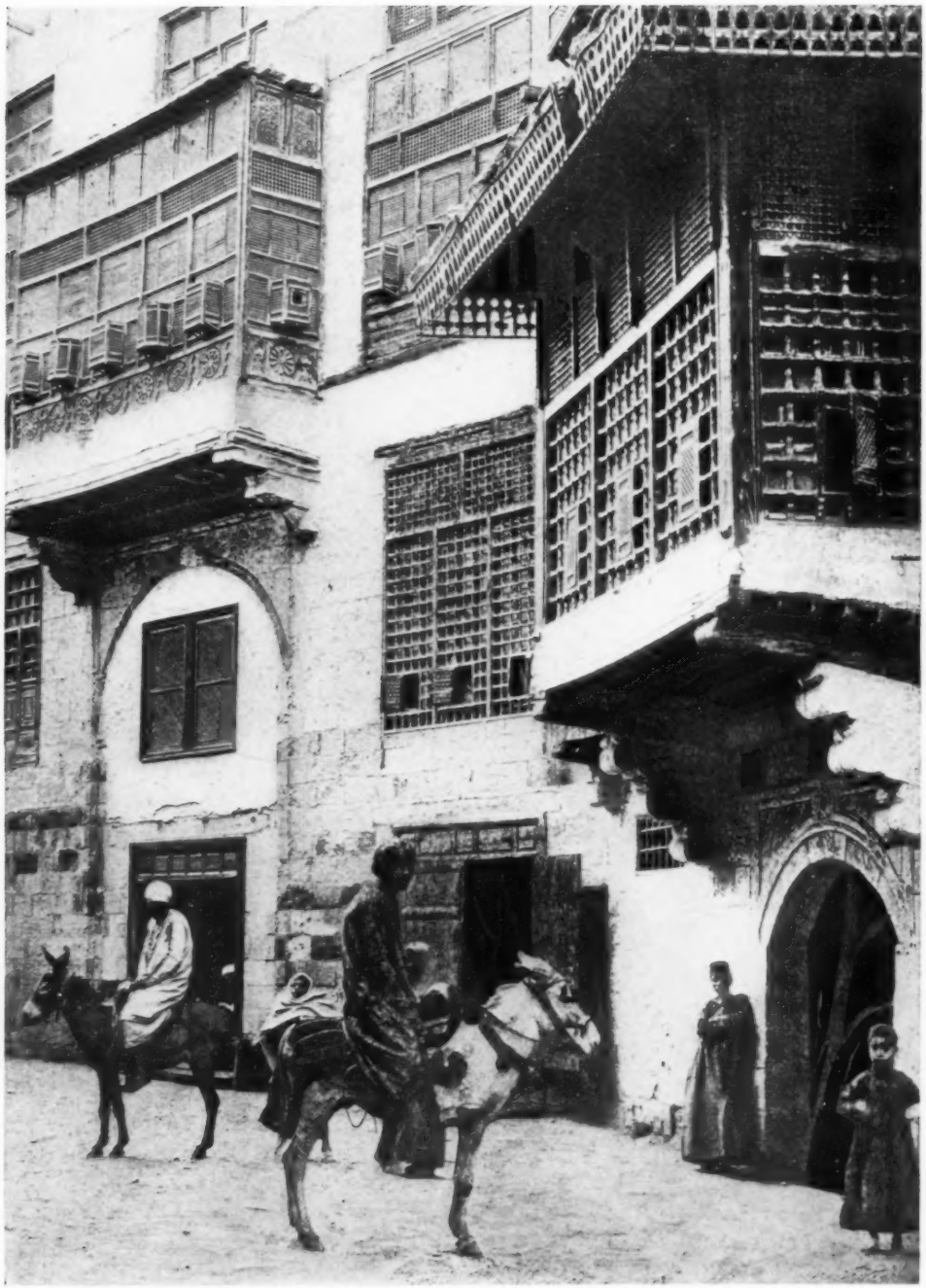
The façade of the old Cairene house is scant of fenestration; but few windows and these high above the street. One entrance of deep reveal serves for both master and servants, thus facilitating the task of the porter. In composition, the tall narrow building is general, its height being determined by the custom of making the principal apartment of the harem lofty, often domed. This, the chief piece of the domestic plan, is not expressed on the front; set well behind the court or patio, its higher roof level is not seen from the street, with the result that a really lofty house might appear to be of only two or three stories. The second

The Architectural Record *August*, 1925

HOUSE IN THE BEIT EL KADI, CAIRO



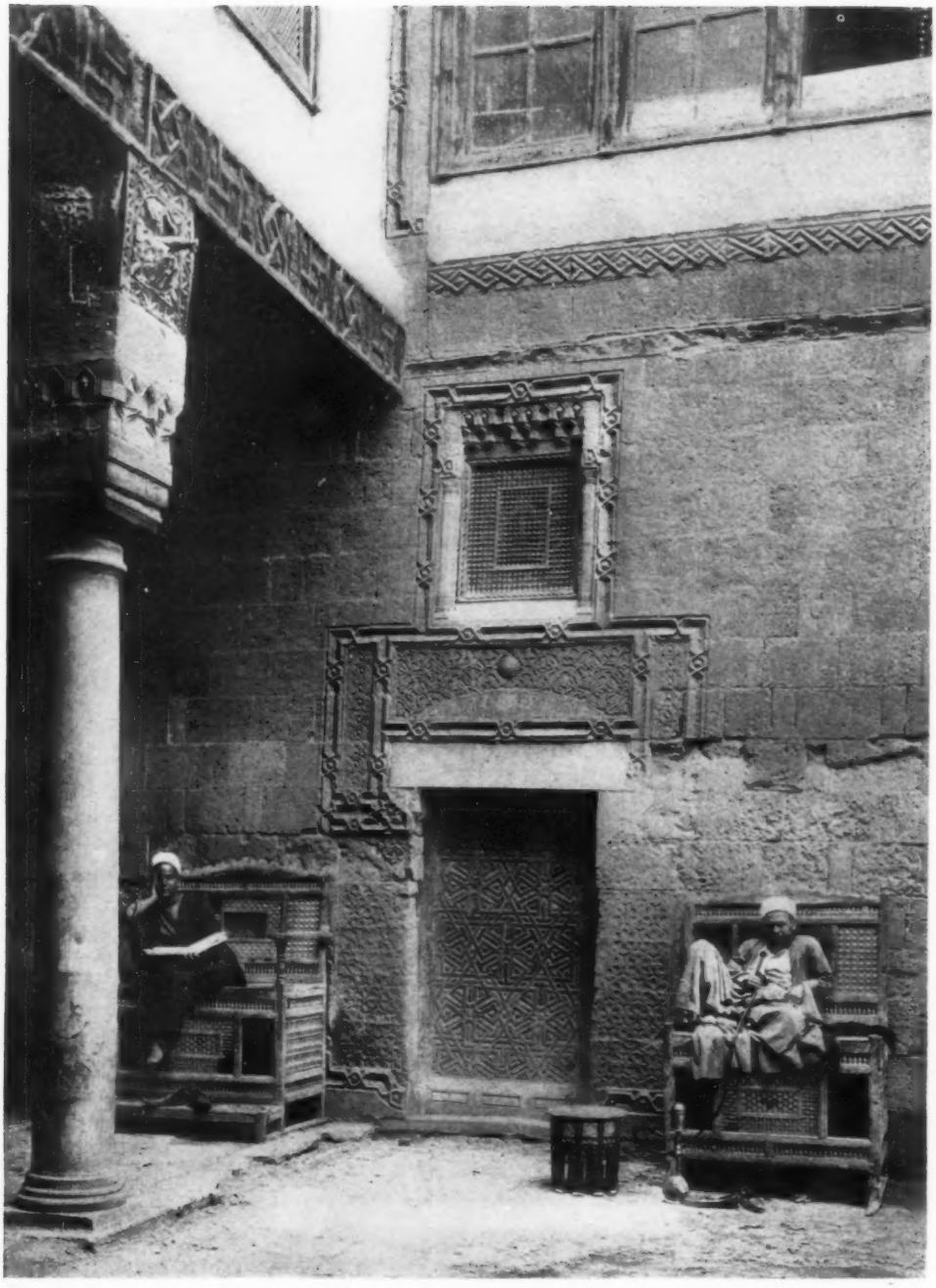
HOUSE IN THE BAZAAR OF THE TENTMAKERS, CAIRO



BAY WINDOWS SURMOUNTING DOORWAYS—CAIRENE HOUSES

AN OLD STREET IN CAIRO

Showing many *mushrabiyehs* and large corbels



CORNER OF A COURT, CAIRO

The beam resting on the stone column is faced with planks on to which narrow moulding is tacked in patterns

story has a bold overhang and perhaps a lesser for each additional floor, so that in certain narrow streets the opposite cornices and bay windows almost touch. Supporting the overhang are great stone, or sometimes wood, corbels, and these are as characteristic a Cairene feature as are the graceful oriel windows with their wooden gratings or *mushrabiyehs*. (The word means literally *drinking place*, for in these recesses stands the porous water jar or *kulla* to be cooled by the current of air.) The stone corbel or modillion with the cyma referred to above was originally a Sassanian feature, of which the Mohammedans became extraordinarily enamored and which they still use. Ruins of twelfth-century palaces in the Fatimite quarter of Cairo retain these huge brackets, the only trace of the projecting second stories and bay windows they once upheld. The same form can be seen in the tenth-century Asturian churches, copied presumably by Christian architects from buildings erected by the Arabs.

Wide wooden eaves laid on rafters and the whole supported on brackets (generally of wood) denote a relatively late façade. Not being a climatic necessity (with an average of only six rainy days a year in Cairo) the wide eaves were an imported fashion, perhaps even from Moorish Spain. Zaragoza, for instance, was famous for them.

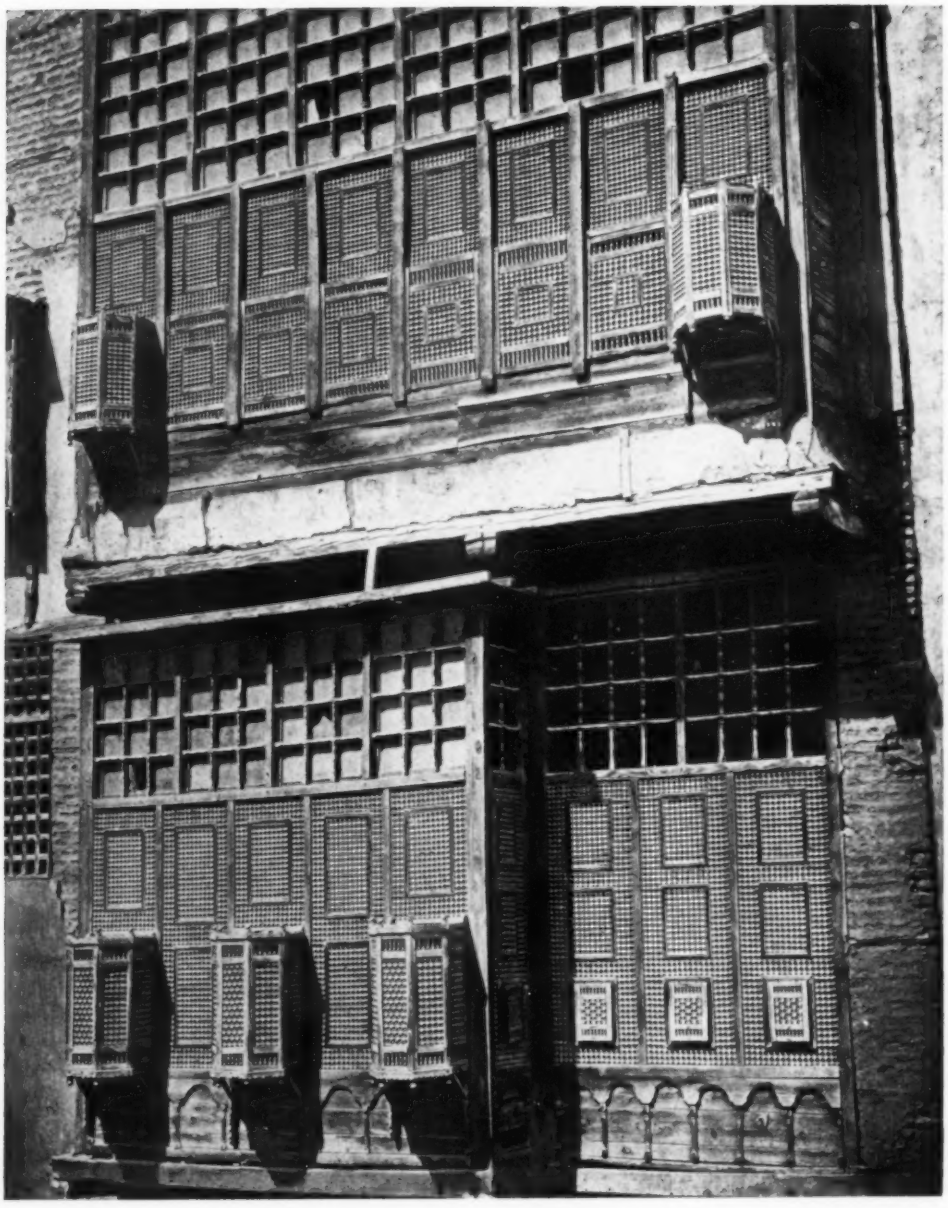
As to material, the Cairo house is generally of wooden frame with a brick or rubble fill and faced with white stucco; but the more important dwellings have dressed stone up to the level of the second story inside and out, and rare is the façade that has no stone or marble trim around the entrance. The stone courses of the first floor invariably measure some fourteen inches in height and are painted in alternate rows of reddish ochre and white lime wash; the marble of the entrance may be black and white or red and white.

The traveler familiar with Spanish Mudéjar houses, i.e.: houses built by Moors for Christians, more or less after a Mohammedan model, will see that they resemble Cairene houses in their stucco facing, their scant fenestration, and in having only one entrance from the street. A difference would be that most Spanish façades are in one plane, without overhanging stories or bay windows, and that the openings are furnished with iron grilles instead of intricate woodwork.

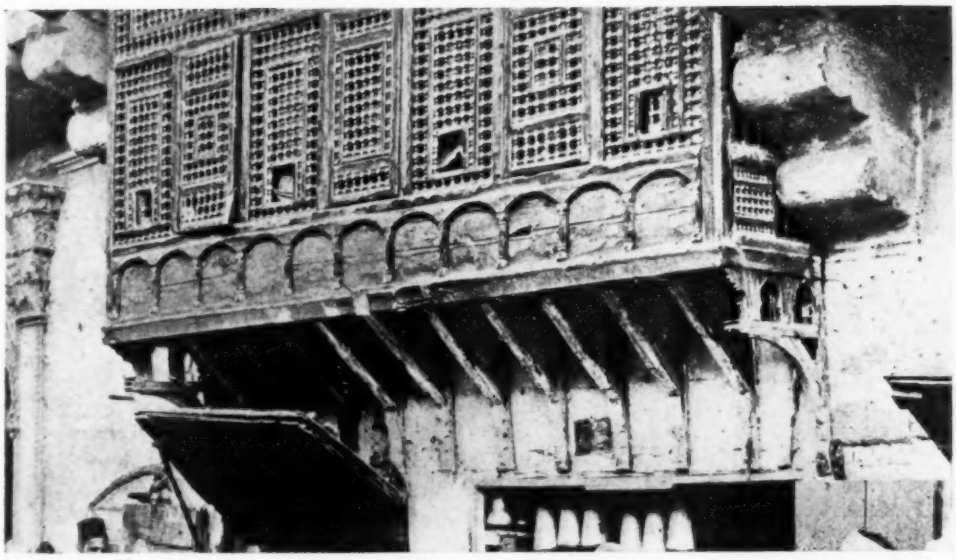
The Cairo plan is that of rooms grouped around an open court (*hosh*), this paved and with a fountain in the center; a low fountain, never mounted on a shaft. From the street to the court the passage (*dirkeh*) is always designed with an angle in order to prevent a view either to or from the outside world, for the prime necessity the architect had to keep in mind was that the women of the family must neither see nor be seen. On the ground floor, besides the men's apartments, are the kitchen, servants' rooms and stables; above stairs are the women's rooms, or harem. As a rule the ground floor is of masonry and vaulted; above, the ceilings are beamed. If the house has a secondary court the stair to the harem is placed there; otherwise it rises inconspicuously from an angle of the main patio, between two walls, and is undecorated. The chief stair of the house, also between walls, leads to a sort of *mezzanine* or *entresol*, beyond which a shorter flight conducts to the harem. A variety of levels, it will be seen, results from such construction.

In the case of the Bookbinder's House (or as some call it, the Goldsmith's), the principal stair leads to an arched gallery overlooking the court and making a passage to the main rooms. Towards the street side this passage is provided with an ample bay or balcony screened by mushrabiyehs, its floor being raised a step or two above that of the passage, and a wide seat, meant to be luxuriously cushioned, being built under the mushrabiyeh. Such a recess is called a *makad*. Besides the communicating loggia or hall just described, there is a round-about hall tucked in between and behind other rooms, by which women and servants could pass in case the master was receiving in the *makad*. The other sides of the court are walled and commanded by one bay and several small windows, all closely screened.

Mention has been made of the unusual



MUSHRABIYEHS—SEEN FROM THE HOUSE OPPOSITE



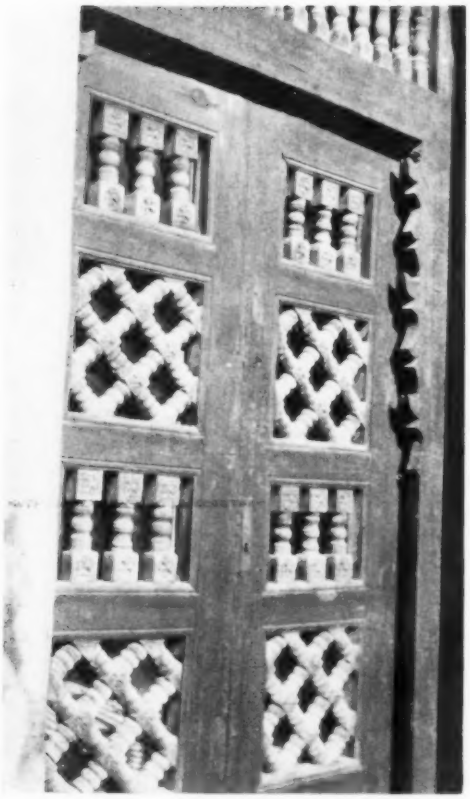
The little arch motive seen on this *mushrabiyeh* screen is found on many bay windows

height of the long narrow *kaa* or salon of the harem. Accurately speaking, the *kaa* consists of three portions differentiated by the height of their ceilings. It is the central, the *durkah*, that is accentuated by the dome or lantern with colored lights; also it is one step lower than the ends, and if one of these two be wider than the other, that is the place of honor for the master and his favorite. The *durkah* is further marked off from the end section of the salon by the beam and brackets upholding the walls of the lantern—massive brackets reaching far down the sides of the room. From the dome and likewise from the beams of the lower ceilings hang polygonal lanterns exactly like those still made in both Cairo and Seville. A colored marble pavement, low fountain, marble mosaic wainscot with, occasionally, rich faience plaques above instead of merely the white plaster wall, a stucco frieze under the painted ceiling, and a grated recess high up in the wall for female musicians, complete the decoration of the *kaa*, the most elaborate piece of the Cairo house.

Bedrooms were small, little larger than the mattress they held, and which was rolled up each morning and kept in the built-in wardrobe; nor was it necessary that all had direct ventilation. Most of them had painted ceilings and similarly decorated wardrobes.

Comparing the Cairene with the Andalusian plan one is instantly reminded of the difference between monogamy and polygamy. True, the Spanish plan is also centered around a court with a fountain, but this court or patio is not the exclusive lounge of the male members of the family; instead it is the summer living-room of all, made gay with plants and furniture. The passage from it to the street is not deliberately bent into a right angle; instead it is straight and permits a glance from and to the passer-by, and in this respect we must conclude that it is not true to its Moslem prototype. Furthermore, the patio has an open gallery on all sides, this frequently repeated on the second story. In short, the Spanish patio bespeaks the frankness and naturalness of European family life, while the Cairene *hosh* bespeaks the exclusiveness of the Mohammedan. And yet Spaniards as compared with other Europeans are considered most exclusive in their home.

In the matter of structural details, especially those into the fashioning of



A pair of cupboard doors with short spindles used straight and diagonally
[The Coptic Museum]

Detail of spindle doors
[The Coptic Museum]

which wood enters, the Cairene house presents much of interest—doors, ceilings, cupboards and wardrobes, and the ubiquitous *mushrabiyeh* or window screen. This predilection for working in a material that is not plentiful in the land is, to the foreigner, an unexpected one.

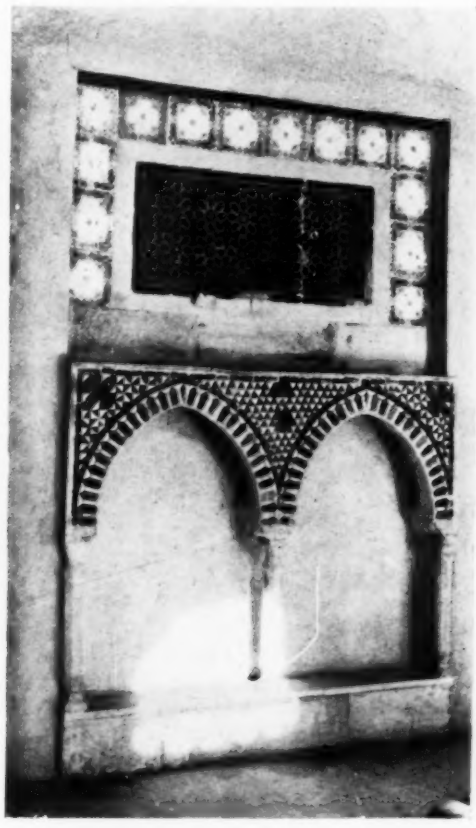
Oriental flat ceilings are of the same tradition as the Spanish, built up of main and transversed beams with either small panels or recessed coffers to fill the spaces between. Such panels were sometimes cut out like a picture frame; the edge of the opening beveled or moulded, and a painted piece set behind; and sometimes the ceiling consisted of master beams only with planks between, these either painted or adorned by strips of narrow moulding set in a geometric pattern. Still plainer was the covering for a small room or over the small area of the oriel recess (the *makad*), where flat planks alone were laid and painted with the usual sprigs of flowers, greyish on a dark ground, or with stars, shells or other Eastern motifs.

What appears to be a beam is often a tree trunk faced by three long boards that accomplish the right angle; and curiously enough there are many ancient arches of brick or masonry (ninth or tenth-century Coptic work) similarly faced with planks curved to form and then painted.

To receive the painted decoration a beam was entirely wrapped with canvas, which was coated with plaster and size before color was applied; in other words, the Egyptian process was that followed

Mushrabiyeh screens brought from demolished palaces

[The Coptic Museum]



A *Suffa*, or built in plaster shelf for holding cups; mosaic of colored marble with a panel of tiles above

by the primitive European religious painters, and dates back to the far-off days of painted wooden mummy cases.

Domes of wood and the massive stalactite forms that fill the corners under them in much the same way as the masonry squinch does, are complicated structures built up of many small units. Great skill and much patience went into their making, yet, as distinct from European woodwork, joinery and mitering are hardly ever met with. Domes are brightly polychromed, sometimes inlaid as well, and have a rich plaster frieze beneath.

Egyptian wooden doors are worth a whole volume in themselves, and fortunately the museums and the oldest private houses offer excellent opportunities for their study. It is interesting to note that all large doors are hung exactly as were those of the ancient temples and palaces along the Nile—the innermost member of its frame prolonged top and bottom to form a pivot, and this fitted into a socket in the threshold below and into a corbel above. The wooden doors of ancient Egypt are known to us only through contemporaneous reliefs on the temple walls but the sockets in the pavement and the huge stone corbels above still remain to denote how the doors swung. The same system was employed in the Alhambra, built for the Moorish kings in the early fourteenth century, and in the Casa de Pilatos built for a Christian family of Seville in the early sixteenth.

Cairene house doors are of great variety; sometimes built up of boards on

which a central panel of star interlacing is nailed, sometimes of coffers braced by heavy close-set rectangular framing; and they may be studded with iron nail heads or they may show the ornamental strap hinge we are accustomed to associate only with Gothic Europe—indeed it may be that such hinges are posterior to the period of the Crusaders. Some entrances are almost as grand as those of the mosques, the massive wooden doors set in a deep recess of stone or marble, of which a striking feature are the joggled or interlocked voussoirs of alternate colors; another type is the round-arched of three or four reveal moulds and dog-tooth extrados.

Simpler of course are the wooden doors between rooms or on the closets with which the Cairene house is so plentifully supplied—of pine from Asia Minor, constructed of flat planks overlaid by mouldings, or of coffers or spindles, or of all three features combined, and either painted or even further enriched by a flat band of carving. The building up of doors from an infinity of small panels to resist the shrinkage due to dry climate led to a very special type, on which there was no iron hardware but which was opened and locked by bolts and slides of wood which, when not in use, were most ingeniously concealed in the paneling.

Cupboard doors, also small window shutters, present interesting arrangements of the short spindle placed straight or diagonally, this for the whole door or perhaps only for the upper third, the lower part being solid. Such doors are invariably hung by what might be called a hook and eye hinge—an iron loop in the jamb receiving the door hook, which is afterwards clinched together. Something akin to the Egyptian closet, but much more massive, may still be seen in Spanish sacristies—the *armario* for guarding the altar service; and in the home, the dimunitive kitchen *fresquero*, or food closet, with the upper part of the door ventilated by means of diagonal lattice work, would be another one which derives its origin from the old Moorish cupboard.

The *mushrabiyeh* or wooden grating is considered so completely an Oriental feature that one would hardly look for anything resembling it even in the once Moorish Spain. Yet in Seville, and in the chapel of the Castle of Bellver, in Majorca, one may see large screens of almost the same technique. In Cairo also it is used in the mosque interior, besides giving the indispensable note to the domestic façade. Not only is the projecting oriel window closed in by this sort of screen, but from this projects still another *mushrabiyeh*, rectangular or many-sided, or even a whole series of them supported by light wooden brackets; and the whole, elegant wooden balcony and bead-like screen, is considered one of the most characteristic of Arabian inventions in domestic architecture. The woodwork gives the effect of innumerable interlaced strings of beads, and in spite of the tediousness of its making and of its being a rapid conductor of flames when a fire breaks out, it is plentifully employed on modern houses, and the turners who make it can be seen sitting cross-legged before a primitive lathe, revolving this with a bow and string, and using toes as well as fingers. Screens all of bead form, others in combination with flat lattices or with spindles enliven the façade of nearly every house in Cairo; certainly of every house in the old quarter; and their absence from the Spanish façade where they are replaced by a stout iron *reja* marks a wide deviation from the Moorish prototype.

Besides the salient window, old Arab houses had a few simple rectangular openings with vertical grilles either of iron or wood; and, most emphatically Oriental, the *kamariyeh* or opening filled with a pierced slab of plaster or marble. This piercing is done while the plaster is soft and the little interstices are filled with bright colored glass. Seen from inside these colors complete the conceit of a plant or a vase of flowers, the design most often used for piercing the slab. Similar *ajours* of stucco can be seen in the oldest mosques, that of Ibn Tulun, for one (ninth century), but without the glass insets; and with glass, in mosques dating from the thirteenth. As used in domestic architecture they not only constitute separate windows, but are also

placed above the *mushrabiyeh* screens.

While one regrets that so many old Cairene palaces have disappeared, it is a compensation to find that the Egyptians (always at the instigation of foreigners) have saved entire a few dwellings, as well as many precious fragments in the Arabian and Coptic Museums. Especially is the zealous Egyptian curator who reconstructed the neighboring houses into which the Coptic collection has expanded to be commended for his good judgment and taste in the employment of old architectural bits. Comparing what Cairo has to offer with the sad Cordova of today, one cannot forbear reproaching the one European nation that had the opportunity, and neglected it, of saving a precious Oriental heritage. Not even a small Moslem museum was ever created, while there was yet time, in what was once Moorish Spain. Now it is too late.

Kamariyeh, or perforated plaster window with insets of colored glass, fourteenth century. (From the *Manual d'Art Musulman*, by Gaston Migeon)

The HOUSING SITUATION IN NEW YORK CITY AS IT AFFECTS THE WORKING CLASSES

By

Willford I King

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THE AVERAGE laboring family in New York City is inadequately housed. Of this fact, there can be no question. Every investigating commission, in its report, has emphasized the shortage of housing and the prevalence of overcrowding; but all this is a matter of such common knowledge that no commission is required to verify the fact. The minimum space which can comfortably accommodate a family of five or six persons would seem to be six rooms. An apartment of this size, even in buildings constructed in the most economical manner, financed at low interest rates, and rented not with a view to obtaining a maximum profit, but on terms arranged to yield but a narrow margin, will command at least $800 or $900 a year. How does this sum compare with the annual rent actually paid by families of the New York laboring classes? Apparently, there has been no comprehensive comparison of New York rents with those in other cities in any very recent year. In 1918, the United States Bureau of Labor Statistics investigated rents in various sections of the country. The figures presented in their report [1] show that, in that year, the average laboring family of New York City spent $214.42 for rent. This figure was higher than the amount paid in most of the other cities in the United States. In fact, the average family in the ninety-two industrial cities studied, expended for rent in 1918 only $186.55. [2]

While, then, these figures indicate that New York City families, as compared to those in other parts of the country, have been at a disadvantage in regard to the amount spent for housing, there are other features which must be taken into consideration. The report just mentioned shows [3] that, in 1918, the income of the average New York City family studied was $1,556, as compared to a corresponding figure of $1,513 for laboring families in the ninety-two cities combined. [4] For every $100 that a New York City family spent for consumption goods, $14.30 went for rent, as compared to $13.00 out of each $100 paid out by the families in the other ninety-one cities covered by the investigation. If, however, we subtract from the $1,556 income that the New York City families had in 1918, the $214 that they spent for rent, and likewise take from the $1,513 income of the families in the other cities, the $186 spent for rent, we find that New Yorkers had left $1,342 to use for other purposes, as compared to $1,327 for the citizens in other parts of the country. It appears from these figures that, in spite of the fact that they paid more for rent,—even a higher percentage of their total income—the New Yorkers were better off than the other city people as far as the size of the remaining balance of their income was concerned.

The number of families considered by the United States Bureau of Labor Statistics in comparing the incomes of the people in the various cities, was, however, not large enough to constitute a fair sample, and hence, we cannot place much confidence in the conclusions regarding the relative incomes of the working classes in the different places. It is, then, worth while to turn to more extensive sources of information for further light. From the *United States Census of Manu-*

(1) *Bulletin* 357, page 47.
(2) *Bulletin* 357, page 5.
(3) *Bulletin* 357, page 97.
(4) *Bulletin* 357, page 4.

factures, we can ascertain the full-time earnings in 1921 of all employees working in the factories of the United States. According to the figures there given, [5] the average full-time pay in New York City was $1,421 as against $1,181 in the United States as a whole. [6] In other words, these figures indicate that manufacturing wages in New York City in 1921 were more than 20% higher than in the rest of the United States, while the reports of the United States Bureau of Labor Statistics show that rents in New York City were only 15% higher than the average. [7] On this basis, it would seem, then, that New York City factory workers have not quite as much reason to complain as have those in other cities.

1921 was, however, a depression year. Perhaps things have changed since that date. We can gain some light as to the present situation from the New York State *Industrial Bulletin,* March, 1925, page 145. The figures there given cover a large number of factories both in New York City and in the rest of the State. They show that male workers in New York City earned in February, 1925, an average wage of $31.94 a week as compared to $30.66 a week in outside localities. From these figures, we would judge that the wage rate in New York is only 4.2% higher than in the rest of the State. However, the same bulletin tells us that women earned $19.45 in the City of New York as compared to $15.79 in the rest of the State, indicating that the City pay is 23.2% higher for female labor.

The States of Wisconsin and Illinois have also been keeping records of earnings in factories, and it is possible to obtain a comparison between New York City and those States. The average pay of all employees of New York City factories in February, 1925, was $28.89 per week, while in the same month in Wisconsin factories the average employees received $25.67 per week. Apparently, then, New York City factory wages are 12½% higher than those paid to similar employees in Wisconsin. [8] From the Illinois *Labor Bulletin,* [9] we learn that male employees in Illinois earned $30.70 per week as compared to $31.94 in New York City, giving a 4.1% margin in favor of New York City employees. Female factory workers in New York City, however, received an average of $19.45 as compared to $18.07 in Illinois. This indicates that New York City factory women receive 7.6% higher pay than do their Illinois sisters. From the figures just cited, the conclusion must be drawn that, in New York City, men are slightly better paid and women draw materially higher pay than they do elsewhere.

However, it may be said that factory workers are not truly representative of the conditions among the laboring classes of the country in general. In order to see whether this is true or not, let us turn to the figures appearing in the *American Contractor* of January 1, 1925, giving "comparative wage scales of building laborers in different cities of the country." For convenience sake, we may tabulate them as follows:

	New York City	Other Cities	Ratios
Carpenters	$1.3125	$0.9356	1.403
Bricklayers	1.50	1.339	1.121
Laborers	.9375	.4743	1.977

The figures for the cities other than New York have been obtained by the simple process of averaging the rates for all these cities, equal weights being assigned to each. This method is not so unfair as it might seem, for there are many small cities and few large ones in the United States, and hence, every small city in the sample may be taken as representing a number of other cities not reported. This comparison is much more favorable to New York City than the figures for wages in manufacturing, for it shows us that carpenters receive 40% more, bricklayers, 12% more, and common laborers nearly twice as much in New York City as in the average city of the country outside. In view of all this evidence, there seems to be little doubt that the wage

(5) Page 1563.
(6) Page 1370.
(7) *Bulletin* 357, pages 5 and 47.
(8) *Wisconsin Labor Market,* March, 1925, page 6.
(9) April, 1925, page 141

level in New York City is not only high enough to enable the laboring classes to pay their additional rent, but leaves a considerable margin for other expenses.

Of course, it may be argued that the New York City families get much less housing space for their money than they do in other sections of the country. However, according to the studies of the United States Bureau of Labor Statistics, [10] the average New York City family, in 1918, lived in an apartment of four rooms, which was exactly the same as the average for the United States as a whole, while for families living in detached houses, the New Yorkers are credited with more space than those in the rest of the country. However, nearly all the New York City families studied lived in flats or apartments, so that the sample for separate houses is not really significant. But, in the United States as a whole, working families living in separate houses, had only five rooms per family; hence, it appears that the space occupied by the families covered by the United States Bureau of Labor Statistics study was not greatly different in the metropolis from what it was in other sections of the country.

At this point, however, some one is sure to suggest that conditions in 1918 were very different from those in 1925. They will say that, in pre-war times, the working people of New York City were comfortably housed, but that, since that time, conditions have rapidly grown worse until they have reached the present lamentable state. In order to get a reasonable comparison of the situation at the different dates mentioned, it is necessary to pursue a somewhat roundabout course in making our calculations. As previously stated, the figures given by the Industrial Commissioner of New York in the *Industrial Bulletin* [11] indicate that the male operators in the New York City factories averaged $31.94 per week in February. The United States Bureau of Labor Statistics study shows [12] that the average laboring family earned 18% in addition to the earnings of the head of the family. When this percentage is added to the $31.94 just mentioned, we arrive at $37.69 as being the probable total earnings of a New York City factory worker and his family in February, 1925. If the gainfully employed members of such a family worked on an average 48 weeks, they would earn $1,809 in a year. The figures in the bulletin just cited indicate, however, that they would have additional income from sources other than earnings,—as, for example, the keeping of boarders and lodgers, sufficient to bring their total income up to $1,885 per year. From the number of the New York *Industrial Bulletin* just mentioned, [13] we find that earnings in 1918 were $\frac{160}{220}$ as high as in February, 1925. On that basis, the income of the same workman that is receiving at present $1,885 a year would, in 1918, have been only $1,371. By a similar computation, we find that his income in 1914 was only $857.

From the same study by the United States Bureau of Labor Statistics, we find that, in 1918, the laboring man paid 15.4% of his income for rent. [14] This means that, in that year, our factory worker paid $211. In 1918, rents had scarcely begun to rise, so that they were still little higher than in 1914. By applying the index of the "Cost of Housing" appearing in the United States Bureau of Labor Statistics studies, [15] we find that our typical factory worker paid as rent $202 in 1914, and $338 in December, 1924. By comparing these figures with his income at the same dates, we learn that his housing cost him 23.6% of his income in 1914, 15.4% in 1918, and 22.1% in 1924. Evidently, then, on a percentage bases, he is not so badly off from the housing standpoint as he was in 1914.

In 1918, it is clear that housing conditions were extremely favorable from the standpoint of the tenants. The reason

(10) *Bulletin* 357, pages 313 and 333.
(11) March, 1925, page 145.
(12) *Bulletin* 357, page 96.
(13) Page 142
(14) *Bulletin* 357, page 47.
(15) Press Release, January 24, 1925.

for this, however, was that rents were largely fixed by custom and contracts, and had not yet begun to respond to the decreased purchasing power of the dollar. The 1918 situation was not one that could have long continued, since the rents were then so low that they yielded but a trivial return on the cost of the quarters, and hence, new building practically stopped. Had rents remained at this level, it would have been practically impossible to have found even approximately adequate quarters for the present population of New York City.

It appears from the figures just cited, that the typical factory family in 1914 received $857 income and out of that amount, spent $202 for rent, leaving $655 for other purposes. In 1918, by a similar computation, we find that there remained $1,160 for other purposes, while, by the end of 1924, this balance had risen to $1,547. In other words, in 1924, the amount of money available for other things than housing was 2.36 times as great as in 1914. According to the "Cost of Living" index, published by the United States Bureau of Labor Statistics, we find, however, that the average price of goods bought by working men in New York City was only 79% higher in December, 1924 than in December, 1914. Clearly, then, there has been a decided betterment in the condition of the New York City wage worker during this decade. If the wage level of 1914 prevailed now, the family living in the same type of a house as in that year would have only $1,171 to pay for other items than rent, as compared with $1,547 which they actually have at present. In other words, they have a net gain of $376. According to our estimate given above, they pay however, at the present time, but $338 for rent. They could then, under present circumstances, rent quarters twice as good as those in which they lived in 1914, and still have a few additional dollars left for spending money.

But the typical New York City worker has gained not only because he receives better wages, but he has also been enabled to save a material sum in addition, through the advent of prohibition. What with the $376 gain in cash and the saving of the money that he formerly spent for whiskey and beer, it is not at all surprising that the working family of today has more surplus for phonographs, radios, and entertainment, and that the working people are notably better dressed than they were ten years back. While, then, conditions are at present far from being all that we would have them, there seems to be no escape from the fact that the condition of the working man today is markedly superior to what it was in the times before the war.

The figures cited in the preceding pages have shown that rents are higher in New York City than elsewhere, but that wages are also higher. Which is cause and which is effect? Perhaps we will be in a better position to answer this question after we have first considered some hypothetical examples. Let us suppose first, that a law were passed—halving all rents in New York City. Would this mean that housing conditions would be made better or worse? The obvious answer is that, under such circumstances, no new houses would be constructed, and that, as the old houses decayed, overcrowding would become worse and worse, especially in view of the fact that the population of the city is increasing at a rapid rate.

Next, let us suppose that, instead of halving rents by law, through some new discovery, builders were enabled to produce houses at 50% of the present cost. What would be the effect of such a discovery? Under such circumstances, it is evident that there would be a flood of new building. With cheaper houses, workers with present wages could choose between more house room or houses of better quality. If the effects of this discovery were confined to New York City, improved housing conditions in New York City would make it a greater magnet than ever and there would be a large additional flow of population to this city from other parts of the country and from abroad. This influx of population would, through competition, tend eventually to lower the wage level, and the lowered wage level would cut down the demand for houses. However, when equilibrium

was restored, New York City workers would be better housed than before.

As a third hypothesis, let us suppose that the wage rate in New York City was cut in half. How would this affect the housing question? Clearly, the demand for houses would fall off very sharply. Families would crowd into smaller and smaller space, and soon "To Let" signs would be visible in every direction.

What would happen, on the other hand, if by some mysterious force, the wage rate in New York City could be doubled? In this case, rents would rise sharply and the soaring rents would quickly be followed by much building, especially of houses of the better quality, for the workman who now lives in a poor-grade house would demand not only more room, but rooms of higher quality.

As a fifth premise, let us imagine that, by some edict, all the theaters and moving picture houses in New York City were permanently closed. How would this affect the housing problem? Since these constitute one of the reasons why people prefer to live in New York City than elsewhere, it would tend to stop the flow of population to New York City, and rents might fall temporarily for that reason.

From the hypothetical examples just cited, we must conclude that it is impossible to say either that the rent level is wholly the result of wage conditions or that wage conditions are wholly dependent upon the level of rents. The present housing situation represents the natural resultant of all the existing forces when they have attained approximate equilibrium.

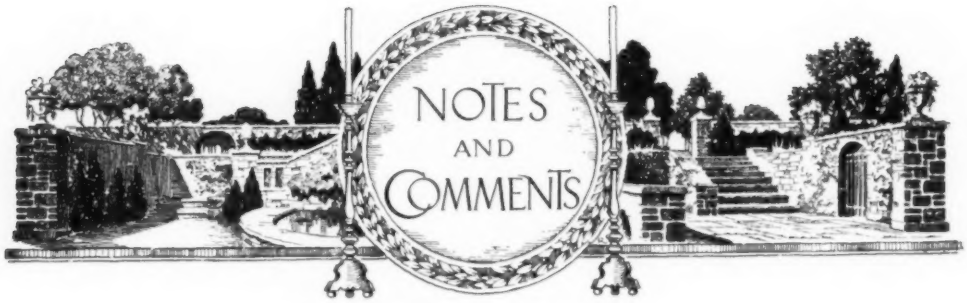
Because of the peculiar business advantages connected with the existence of New York harbor, many enterprises have been attracted to Manhattan Island. Since people must needs live close enough to their respective places of employment, to reach them in time for work, the vicinity of New York City has become extremely crowded. Because of this crowding, there is much demand for each bit of ground, and hence, rents have necessarily been made high as compared to other places in which land is more plentiful. Since the majority of the inhabitants live so far from their work that they must reach it by means of railways of some sort, the expense of transportation is greater for the average New York City family than for those residing in other cities. Because of the necessarily higher level of rents and larger expenditures required for transportation, it has been necessary for New Yorkers to have higher incomes than elsewhere, in order to maintain an equal scale of living. When wages rise above this point, more immigrants remain in New York City than pass on to other localities, and there is a more rapid flow of people from the smaller towns into New York City than into the other cities of the United States. When the differential of wages in New York City is not sufficient to cover the necessary differential in living and transportation costs, the growth of population becomes slower.

The difference in wages will not be exactly equal to the difference in rent and transportation costs because of other factors connected with life in the metropolis. For many people, the presence of unlimited opportunities for entertainment furnishes a great drawing card. Others find that the necessity of travelling long distances to work and of living in noisy and congested districts makes life in such a large city much less attractive than in a smaller town. Furthermore, prices of foodstuffs are somewhat higher in New York City than they are in most sections of the country. All of these forces act together to control the relationship of earnings to the housing supply.

So much for the causes responsible for the existing situation. Now it will be well to turn to the question of the outlook for the future. The illustrations that we have cited seem to indicate that, in respect to housing as well as many other lines, the typical working family is slowly but steadily improving its condition. This improvement is presumably to some extent due to the lessening flow of immigration, and, if this flow is still further reduced, the chances that improvement will continue are enhanced. Most of the betterment in conditions

must, however, be ascribed to the remarkable advances in technique that have enabled us to extract more rapidly the treasures from Nature's storehouse and to transform them more readily into the forms in which they can be used to satisfy our wants. True, some things are becoming scarcer. Our forests are disappearing and lumber costs are necessarily rising, but lumber scarcity is to a large degree offset by the adoption of more economical methods of construction and by the substitution of other materials for lumber. Interest rates, after the great upheaval during the war and the period following, seem to have settled back into a more normal position, and low interest rates furnish a favorable basis for new construction. It appears, therefore, quite probable that, for some time to come, the workers in New York City will continue to improve their housing conditions, but this does not mean that they do not have a long way to go before arriving at a situation even approximating our ideal that every family should have a six-room house, comfortably fitted out and furnished.

OLD MANOR HOUSE, STANTON, GLOUCESTERSHIRE, ENGLAND



ARCHITECTURAL RESPONSE TO SOCIAL CHANGE

During the past spring the large grey mansion on the north corner of Fifth Avenue and Sixty-fifth Street, in New York City, belonging to Vincent Astor, has been sold to a builder as the site for an apartment house, and this bit of news is a sharp reminder of the profound changes which are still taking place in the architecture of New York as the expression of its economic and social life. The house which is now being torn down has had, considering its size and its cost, a comparatively short life. It was built in the early nineties in the French château style from the plans of Richard Morris Hunt, and it occupied a site measuring 125 feet on Fifth Avenue by 100 feet on Sixty-fifth Street. It was devised by Vincent Astor's grandmother, then the "social leader" of New York City, less as a residence than as a place in which to give state dinners, receptions and balls to some hundreds of guests. The rooms on the ground floor were all of them huge in scale, ornate in decoration and meaningless from the point of view of the domestic life of an American citizen. Their function, like the function of the Louis XIV and Louis XV models from which they were copied, was pretentiously social. They were intended as part of the scenery for the pageant of New York society.

This magnificent building is being torn down and thrown into the scrap heap some thirty years after it was erected. Similar buildings in European cities would have lasted hundreds of years, and their destruction would have been preceded by a long period of decay. But the Astor mansion is being destroyed in the pride of its youth. It has not had time to reach middle age as a building. No doubt it was, from the point of view of American architectural taste, somewhat out of date. The better American architects no longer design dwellings with such literal fidelity to particular European styles. But it was not out of date as an economic product. It was sound enough to have been occupied by coming generations.

The Vincent Astor house is being torn down chiefly for two reasons. In the first place, it has outlived its social usefulness and, in the second place, it is profitable to tear it down. New York society has changed much since the days of the old Mrs. Astor. It is no longer necessary for its queens and duchesses to build houses in which four hundred guests can be sumptuously entertained. "Society" itself is broken up into smaller cliques and sets, who see a good deal of one another and very little of anybody else. Of course they entertain a great deal, but they give dinners and dances to a small number of people rather than receptions and balls to the whole of New York society. They do not need such magnificent and capacious residences; and wealthy as they are, they cannot afford the luxury of maintaining a palace merely as a background for an occasional festivity. The income taxes are too exhausting and the cost of domestic service is too burdensome. Since it is necessary to economize somewhere, they naturally prefer to give up an expense which no longer gives them much or any satisfaction.

The consequence is that both in city and country the fashion of building houses which are almost palatial in scale is passing away. American millionaires who have built or inherited such palaces are in many cases abandoning them and living in smaller and more personal residences. When these palaces happen to have been erected in the country or at Newport, they are usually for the most part a total loss to their owners; but when they occupy a sufficiently large site on Fifth Avenue, in New York City, the increased value of the land may well enable the owner to make money by throwing his palace away. That is, he may be able to sell his land at the present time for an amount more than sufficient to pay both for its original cost and for the cost of the destroyed buildings.

The construction of private residences in the old city of New York, now the Borough of Manhattan, has almost entirely ceased. The old houses are, of course, frequently bought

and remodelled by new owners, but more often they are bought by builders of apartment houses and torn down. This is as true of Fifth Avenue as it is of any other street or avenue in Manhattan. The only new buildings now being constructed on upper Fifth Avenue are apartment houses; and the apartments in them are of course intended for the same social and economic class as that which formerly occupied private residences on similar locations. The apartments may rent for from $30,000 to $40,000 a year, and may contain accommodation for twelve or fifteen servants, but even then they are intended for an existence much more modest than that which the Astors and the Vanderbilts formerly maintained in their private palaces. It is impossible to entertain more than a few score of people in an apartment, no matter how big it is, and if an American citizen wishes to entertain more than a few score he properly prefers to do so in a hotel. It is just as well that palatial dwellings should pass. They are economically a waste and socially an anachronism.

HERBERT CROLY

THE PROTECTION OF ARCHITECTURAL IDEA BY COPYRIGHT

A résumé of the new copyright bill to be shortly presented before Congress, was given at a recent meeting of the Architectural League by Mr. Walter Teague, former president of the Artists' section of the Authors' League, and Mr. Reeve, who is actively engaged at Washington on this subject. The new bill has been drafted by Mr. Solberg, for many years Registrar of Copyrights and the foremost authority on this branch of legislation. The English Copyright Bill, which has operated with the greatest efficiency in protecting authors' rights in all the arts, was taken as the model. This new bill, if passed, will render the United States eligible for membership in the Berne Convention, which includes thirty to forty national groups accepting international recognition of the individual's creative privileges. It aims to dispense with the formality of registration, as copyright is assumed to be the author's property upon the completion of his work. In cases of infringement the burden of proof is placed upon the defendant, instead of on the plaintiff, as is the case under the present bill. Today the period of protection is for twenty-eight years, with an additional twenty-eight upon application for extension; the new bill assures copyright for the author's life, with an additional period of fifty years for the heirs to his estate. Under the new bill the purchase of a work, such as a picture or piece of sculpture, only entitles the purchaser to its physical possession and not to rights of reproduction; rights for reproduction are limited to one specified method only, unless otherwise stated in the agreement.

There is little litigation in England under the present act, due to the precision with which the author's rights are defined, and infringers have found it much less costly to settle claims out of court. The proceeding for instituting an action for infringement is very simple and inexpensive, as it consists merely in filing the plaint and the payment of one shilling.

The protection of architectural design would appear to be unattainable, for though artistic invention is a palpable fact, it usually consists in an aggregate of effect produced by an assembly of elements which are public property. We are confronted with a condition in which two totally different architectural results may be produced with identical elements, or an identical result with dissimilar elements. The procedure of courts judging cases of this order has always been to compare the component elements, which in the case of architectural composition is not pertinent. It is possible to conceive a copyright bill so profound and far-reaching in its protection of artistic idea that it would be destructive of progress. This would be the case if a forceful artistic personality who, in the normal course of events has the capacity to become the institutor of a new movement, demonstrates a new point of view or phase of expression: he might be so judicially placed as to debar his confrères from the advantage of his leadership, and thereby stifle a new school at birth.

The most constructive solution of the architect's case was formulated by William Van Alan, architect, who made the following points:

(1) An architect has the right to be, and should be, protected against unscrupulous clients when he has planned a building which is an economic solution to the development of a piece of property, as the solution of the problem involved is the result of his ingenuity, study and practical experience; this is as much his property as any invention exploited for commercial gain.

(2) When any individual or commercial organization has adopted a design for business premises which exemplifies a commercial purpose, it should be possible to copyright that design in order to prevent unscrupulous competitors from erecting similar premises.

(3) There would be no advantage in protecting a mere design or some peculiar style which an architect claims to have originated,

for the reason that a copy always lacks the charm of the originator's work, and with that element missing the imitator's composition will always fall flat. Should such restrictions be enforced it would compel many in the profession to seek more individual solutions to their problems in design, and no doubt result in the production of more varied phases of composition. The progressive and inventive architect will always produce a number of individual ideas; it is probably better to allow the copyists to filch their solutions as they have always done; to paraphrase Kipling freely, "they copy all they can copy, but they cannot copy my mind, and I keep them guessing and thinking just a year and a half behind."

Many New York architects will be surprised to learn that, under the State laws, when an architect files plans with the Building Department, they become public property unless his rights have been protected by a Federal Copyright.

As the time which elapses between the completion of plans and their filing is almost invariably insufficient for the lengthy legal process of registration, the architects of this city are under a very serious disadvantage which should be rectified without loss of time.

LEON V. SOLON

THE ARCHITECT AND THE NEW POSTAL ARRANGEMENTS

One of the last manifestations of the post-war trend to higher prices which the architect has been called upon to face, is the increase in the cost of postal service. It was not until the spring of 1925 that the United States government gave effect to the first comprehensive revision of the postage rates and postal fees that has taken place in more than a quarter of a century. The readjustment was based upon statistical studies and a scientific ascertainment of the cost of handling the mails which had extended over a year, entailing an expense of a quarter of a million dollars.

To partially answer some of the criticism that has been directed against the new postal price list, it may be explained that the mark-up was necessarily a more or less arbitrary one. The Post Office Department has long cherished the ideal of a system of postal charges that would make the service self-sustaining by the simple expedient of compelling each of the four classes of mail and each of the special services to pay its way. The current revision could not be scaled, however, simply to eliminate the annual deficit which has plagued the postal establishment and which has, latterly, approximated $30,000,000 a year. The incentive for the 1925 mark-up of postal prices was the provision of additional revenue to provide for increases in the salary and compensation of postal employees voted by the last Congress. Hence it became imperative to increase the postal income by as nearly as possible the full amount of the new obligation ($68,000,000 per annum) even though the burden might fall unequally upon the different classes of mail users.

Thus the new schedule of postal charges has been, to a considerable extent, a matter of expdeiency, but there is no warrant for the hope that the present arrangements are temporary in so far as the higher level of costs is concerned. It is true that Congress placed the new program in effect for a probationary period of one year beginning April 15, 1925, and each of the two houses of Congress delegated three members to serve on a special Joint Postal Commission which, during this summer and autumn, will carry on a thorough investigation of the workings of the new arrangements with a view to recommending to the new Congress whatever changes and modifications may be found desirable. However, it may be accepted as a fact, that, whatever minor readjustments may be made, architects must look forward to an era of higher costs of mailing for some years to come.

The intimate question is one of the effect of the new postal fees and fares upon the average architect in his everyday professional activities. Such is the scope of the price revision upward that the postage budget in every architectural office is affected, even though there has been no increase in the letter postage rate of 2 cents per ounce. While the rate on personal communications and mail forms sealed against inspection has not been increased, the circumstances of the general project sound the death knell, for the time being, of the proposal to inaugurate one-cent letter postage. Moreover, there has been an increase of 100 per cent, or from one to two cents, in the rate on post cards. Post cards, —as distinguished from the postal cards supplied by the government at the former rate of one cent for the single card and two cents for the reply card—include picture or illustrated cards and all species of private mailing cards including the return cards, order blanks, etc. which are now so generally enclosed with correspondence for convenience in response.

Second-class rates are of moment to publishers of newspapers and magazines rather than to the individual architect. The average

member of the profession will be conscious of a price advance only when he has occasion, say, to mail marked copies of periodicals containing reproductions or references to his work. At that it is, if couched in terms of percentages, a sharp increase that has taken place in what is known as the "transient" second class rate, viz., an advance from 4 ounces for 1 cent to 2 cents for two ounces. The effect of this multiplication of the old rate by four is that many architects have adopted the plan of transmitting "separates," clippings, and partial copies of publications rather than complete copies or are making arrangements with publishers to extend circulation to names furnished by the architect under the sample copy privilege.

By coincidence, the most revolutionary changes in postage rates are found in the quarter where service is rendered in the transmission of architects' drawings, namely, in the third and fourth classes. By popular impression, mail of the third class is made up of books, catalogues and miscellaneous printed matter, whereas the fourth class, or parcel post, is given over to general merchandise. In practical application to the purposes of the architect, these two classes are synonymous, the only dividing line being the boundary formed by a weight limit. This is particularly true under the new regulations.

As at present administered, third class mail embraces all matter formerly included in the third and fourth classes up to and including 8 ounces in weight, while the new fourth class comprises all matter formerly in the third and fourth classes over 8 ounces in weight and not exceeding 70 pounds in the first, second and third zones, and not exceeding 50 pounds when mailed for delivery in the other zones up to and including the eighth zone. On third class matter there has been a rate increase of 50 per cent,—from 1 cent for each two ounces to 1½ cents, except that small books, catalogues, etc., as well as seeds, bulbs, roots, plants, etc., in units not exceeding 8 ounces, are permitted to travel at the old fare of two ounces for 1 cent. The graduated charges of the parcel post, computed on the basis of weight and zone, have not been materially altered in the new postal arrangements. Instead, the need for increased revenue in this quarter is served by exaction of a flat charge or service charge of 2 cents on each parcel, except those originating on rural routes, regardless of weight or distance carried.

Architects enjoy, under the new regulations governing third and fourth class mail, all the privileges which have been theirs heretofore as to permissible notations and inscriptions. By the by, the numerous instances in which architects pay first-class postage on drawings, sketches, etc., would seem to indicate that some members of the profession are not aware that their work is eligible for transportation at the lower fares. Drawings, plans, sketches, etc., whether in pencil, pen and ink, or other mediums, are admissible to third or fourth class (according to weight) provided there be no inclusion of endorsements that convey information, as, for example, a description of the structure or arrangement pictured, written instructions to bidders, etc.

The Post Office Department will not debar architectural drawings by reason of notations in the nature of titles and designations, that is to say, pen or pencil inscriptions such as "front elevation," "stairs," "closet," etc. The autograph signature of the architect is also permissible, along with the date. Many architects are evidently not aware that the regulations permit drawings, transmitted at the fourth class rate, to be sealed, provided the exterior of the package bears the address of the sender and authorization to postmasters to open the parcel for purposes of postal inspection if it be necessary.

As to specifications transmitted by architects, the inflexible ruling of the Department is that typewriting and carbon and letter-press copies thereof are first class matter. But facsimile copies of handwriting or typewriting, produced by a mechanical process such as the printing press, mimeograph, multigraph, etc., are treated as third or fourth class matter if presented for mailing at postoffices in a minimum number of 20 identical unsealed copies. It does not matter whether the specifications in duplicate are sent to one address or to different addresses. Proof sheets, corrected proof sheets, and the manuscript copy accompanying same, are also eligible for inclusion in the fourth class, provided, of course, no item exceeds the size limit which allows a combined length and girth of 84 inches.

For architects one of the notable innovations of the new postal program is the inauguration of the "Special Handling Service," which may be invoked as a means of speeding up the transit of fourth class or parcel post mail. Payment of twenty-five cents, in addition to the regular postage, secures for a fourth class package the same expeditious handling that is accorded firstclass mail. It may be explained that the Special Handling Service does not supplant nor duplicate the Special Delivery Service and the architect who is desirous of quickening to the utmost the transmission of plans, but does not relish the risk nor the rates that characterize airplane

mail, may find it advantageous to pay for both Special Handling and Special Delivery.

To differentiate, it may be pointed out that Special Handling enables a package to keep pace with letter mail throughout the transit from the point of mailing to the city of destination. Special Delivery, on the other hand, does not accelerate mail on its journey from post office to post office or terminal to terminal but does insure immediate delivery upon arrival in the city where the addressee is located. The mail item that pays the extra fare for Special Handling gains on the long haul but awaits the regular delivery at the journey's end. Thus the two services dovetail or interlock. Special Delivery service is yet available at the former fee of ten cents for parcels up to two pounds in weight. For more bulky parcels, the fee is fifteen cents if the weight does not exceed ten pounds and a fee of twenty cents on items that exceed ten pounds.

Certain questions of postal classification take on new significance for architects in the face of the higher rates. Notably there is the official construction placed upon the terms "book" and "catalogue," these forms, in units not exceeding eight ounces, having the benefit of a rate 33 1/3 per cent lower than other printed matter. To be acceptable as a book or catalogue, a publication must comprise not less than twenty-four pages and be "bound." Compliance with these requisites carries no obligation with respect to size of page, weight of paper stock, etc., and the insistence that a book shall be a bound publication is served if the sheets be sewed, pasted or stapled.

The Post Office Department has not persuaded Congress to sanction the Department's coveted hobby—collection of a "due" charge for "directory service" on insufficiently or incorrectly-addressed mail. All of the other postal services cost more, however, under the terms of the new price list. Architects are particularly affected by the increase in the fees for registration and insurance, an increase that, for the smaller indemnities, amounts to 50 per cent or more. In the nature of a "nuisance tax" is the new charge of 3 cents for a return receipt on an insured or registered item. The C. O. D. service, which has come into extensive use in recent years, presents an increase of the basic fee from 10 cents to 12 and 15 cents according to the amount of collection. The new postal status continues all the conveniences of "permit" and "metered" mailing, precanceled stamps and various forms of combination packages or double-purpose mail forms which are favored by architects who desire that plans, specifications, or other slow-moving mail shall arrive at destination by the same delivery as the letter of transmittal.

WALDON FAWCETT

THE ART-IN-TRADES CLUB ANNOUNCE A COMPETITION

A competition in design of domestic interiors is announced for October, 1925, by the Art-in-Trades Club of New York. Designs and specifications are invited from architects, decorators, designers and manufacturers resident in the United States for the decoration and furnishing of (a) two rooms—bedroom and living room; (b) three rooms—dining room, drawing room and bedroom; including floor coverings, wall coverings, furniture and electric fixtures.

The keynote of originality, to the exclusion of copies and imitations of old designs, struck at the Exposition of Modern Decorative and Industrial Art in Paris, is found again in the program of this competition.

A prize of $1,250 for each room in (a) and of $1,500 for each room in (b) will be awarded to the successful designer in each case. A pamphlet giving particulars may be obtained from the Secretary of the Art-in-Trades Club, 34 East Thirty-eighth Street, New York.

NEW YORK STATE ROOSEVELT MEMORIAL. APPOINTMENT OF JOHN RUSSELL POPE AS ARCHITECT

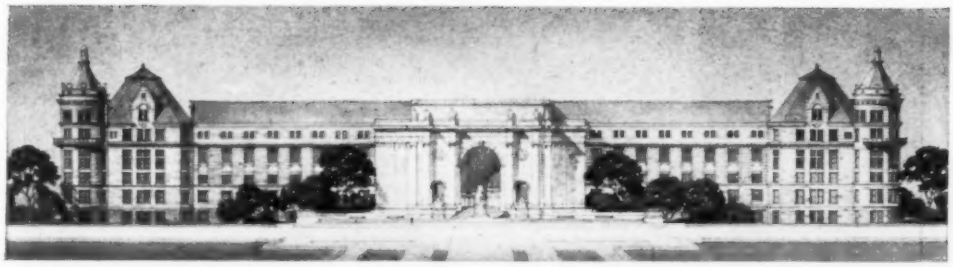
The Trustees of the New York State Roosevelt Memorial, as the outcome of the recent architectural competition participated in by eight invited firms of the State, will build the Memorial to be erected at Central Park West and 77th Street, from the notable design by John Russell Pope reproduced herewith.

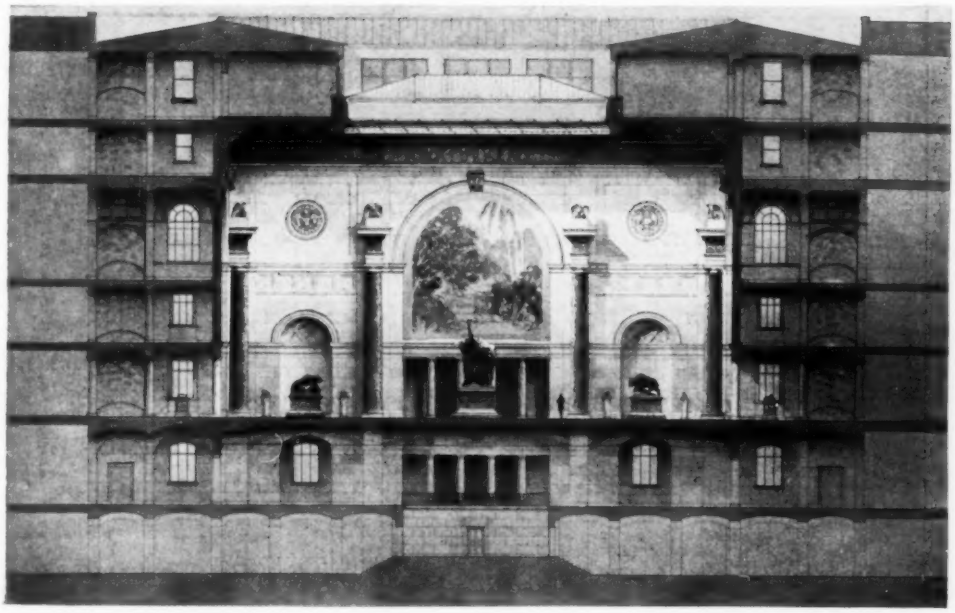
The conditions laid down in the competition program were:

The design should symbolize the scientific, educational, outdoor and exploration aspects of Theodore Roosevelt's life rather than the political and literary.

The design should be consistent with the dignity of the Empire State and reflect the national and international influence of Theodore Roosevelt.

The Memorial should be harmonious with and embody the ideals, purposes and plans of the American Museum of Natural History to which Theodore Roosevelt devoted

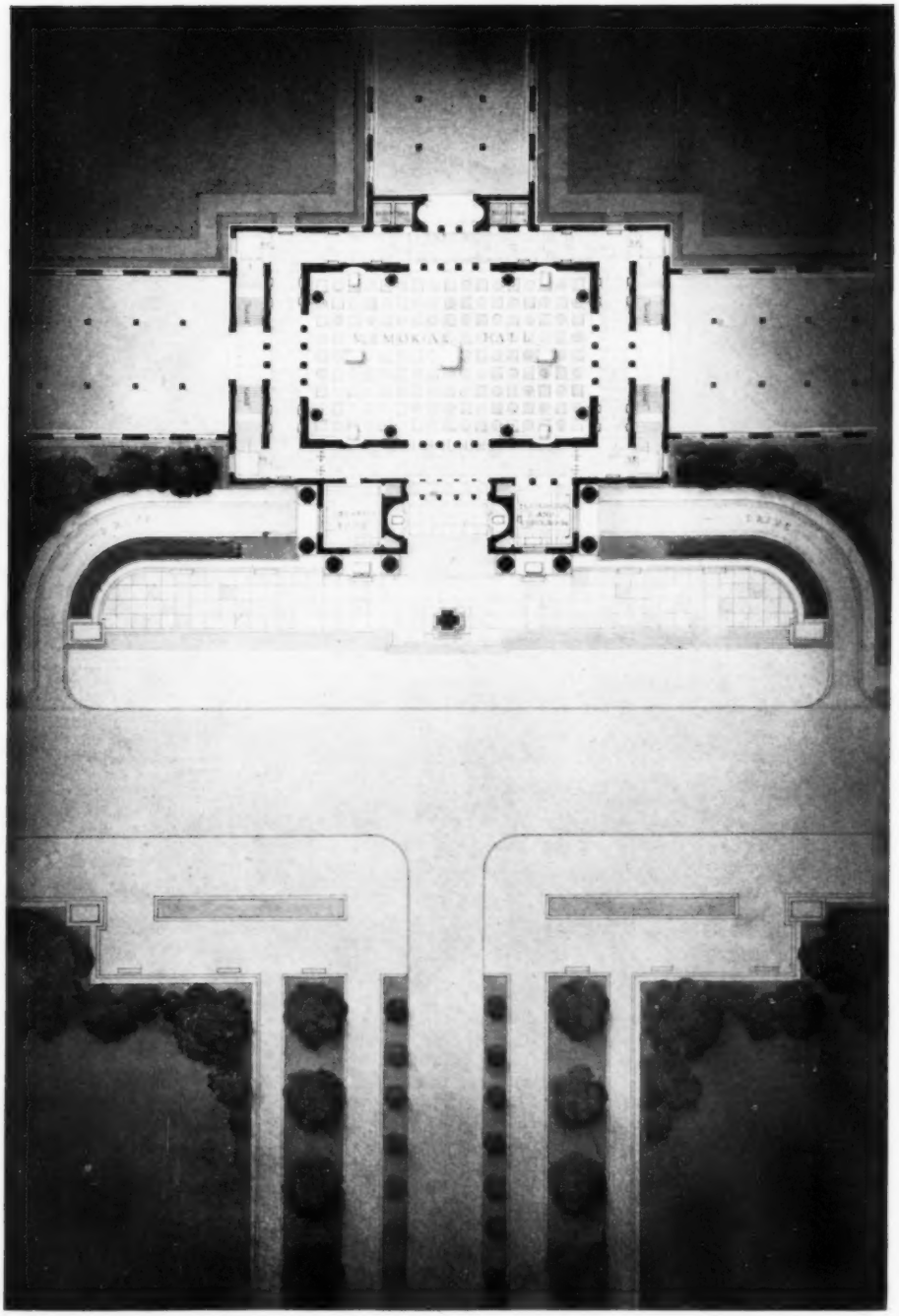




The Design Winning the Competition for the Selection of an Architect

NEW YORK STATE ROOSEVELT MEMORIAL

John Russell Pope, Architect



The Design Winning the Competition for the Selection of an Architect

NEW YORK STATE ROOSEVELT MEMORIAL

John Russell Pope, Architect

the early and the closing years of his life.

The Memorial should provide not only for visitors from the City and the State but should be so planned that it would also become an integral part of the school and public educational system of the State, and likewise form an extension to the educational work of the American Museum of Natural History in the City and in the State.

BOSTON ARCHITECTURAL EXHIBITION

The Architectural Exhibition in Boston this year was rather unusual in that nowhere near the customary proportion of work of local architects was shown. Instead, the walls of the gallery in the Walker Building carried several groups of frames showing the product of the offices of Mr. Howard Shaw, Delano and Aldrich and James Gamble Rogers, evidently especially invited for the occasion. Of these groups, that of Mr. Shaw was the most interesting, including as it did, a number of views of his University at Chicago; the well known Donnelly Printing Plant, in both its earlier truncated and its more fully built-up form; and three characteristic dwellings—a town house for Mr. J. P. Wilson, and country houses at Bloomfield Hills, Mich., and Hinsdale, Ill.; both characteristic designs; the latter in brick and the former in plaster.

Delano and Aldrich showed two rather similar, and both rather cold, designs for a Christian Science Church on Park Ave., N. Y., and a Music Building at Smith College. Mr. Rogers displayed his Aetna Insurance group at Hartford in both drawings and model.

Among local architects two of the largest and best showings were from the office of Maginnis & Walsh and from Cram & Ferguson's. The former exhibited many of the frames that were in New York this year, also including some older work, such as the nearly perfect St. Catherine's at Somerville, Mass.; The Renaissance Trinity College Chapel at Washington; Holy Cross at Worcester; the new Science Building at Boston College, the brick *Italianate* St. Margaret's at Campello, Mass., and the stone Gothic St. Paul's Church at Dorchester.

Cram & Ferguson showed the model for St. George's Chapel at Newport, now well along, a small stone Norman church, the elaborate Princeton design, a classical structure for a Presbyterian Church (not worthy of Gothic?) at Utica, N. Y., and an Alumnae Building at Wellesley, Mass. A Classical English Church in Hawaii also looks strange in its distant locale. Allen and Collens also exhibited several church designs, the recently completed Lindsay Memorial Chapel, Boston; another classic design—this time for a Congregational Church at Bridgeport; a severe English Mortuary Chapel at Mt. Auburn, and the Teachers' College Library at New York.

Stevens and Lee showed a number of large hospital buildings and groups, at Tampa, Florida; Yates County, New York; Ware and Springfield, Mass; and Providence, R. I. Among other larger buildings are an interesting Greek design by Coolidge and Carlson for an Athenaeum at Westfield; some schools at Brookline and Waltham by Kilham, Hopkins & Greeley, and another one at Framingham by Mr. Charles M. Baker in a sort of Italian Villa style. Charles R. Greco shows his large Synagogue at Cleveland, Ohio; Ritchie, Parsons & Taylor exhibit several views of the Massachusetts Agricultural College Memorial Building; and Andrews, Jones, Biscoe and Whitmore hang elevations and an unusually well rendered drawing in crayon of the Recreation Building for the Women's College at Brown University, in a well studied domestic English Brick Renaissance style.

Mr. Richard Arnold Fisher exhibits several views of his new Lincolnshire Hotel on Charles St., Boston; Putnam & Cox show a new Science Building at Mt. Holyoke, a carefully studied apartment house at 32 Beacon Street, next the State House Grounds, and a "Restoration" of "Montpelier," the old General Knox house at Thomaston, Me., built about 1794, as a "Memorial Building." Mr. Gordon Allen shows again the Beaver Day School, exhibited last year, and Parker, Thomas & Rice are represented only by some details of the John Hancock Building, also previously shown.

Among the domestic work exhibited is an "alteration" to the Villa Curonia at Florence, by Edwin S. Dodge; J. A. Schweinfurth's sketch in water color of his own house at Wellesley; Clifford Allbright's studies for two dwellings, St. Peter's Church in Weston, and a Club at Forge Village, Mass.; Walter Atherton's Italian plaster house at Dublin, N. H.; Derby and Robinson's large brick Colonial Lee House at Northampton, and a delicate wooden Colonial House in Cambridge. Another brick Colonial house in this same suburb is shown by Lois Howe and Manning, along with some interior alterations to an old house in West Cedar Street, Beacon Hill, and some designs for cottages at Mariemont, Ohio. Messrs. Ripley & LeBoutillier's stores for the same development are shown in two forms, the early sketch and the completed design.

George F. Marlowe has a frame of entrance

details for various new buildings at the Bobson Institute in Wellesley, and a detail of the entrance to the Sheraton Apartments and a stone dwelling at Rydal, Pa., represent the work of Charles N. Reed, and Strickland, Blodgett and Law.

The only City Planning designs shown are by Arthur Shurtleff, including a proposed development for Marine Park, Boston and a plan for the City of Fall River, Mass. His attractive stone walled garden on a hillside designed for the estate of James J. Phelan at Manchester, by the sea, is also shown by several small views of details.

This is a literal list of the small amount of architecture exhibited as the work of the past year by the local offices. It does not mean that no more work was done. In several cases the architects were probably too busy to lay out an exhibit. In the minds of other men the local exhibition was to a great extent overshadowed by the New York show this year, and some made no effort to cover both.

The walls also contained some attractive water colors, by J. J. Haffner, venturing into the field of opaque color, Harold Warren and Dudley Murphy, (both the latter not dealing with architectural subjects, however), and another showing of excellent glass and cartoons, by Charles J. Connick and William H. Burnham. The portions of a window for St. Agatha's in Pennsylvania by the former were especially successful.

Some of the designs for the Harvard Business School were also shown, including drawings by Perry, Shaw and Hepburn, associated with J. J. Haffner; Ludlow and Peabody; and Coolidge, Shepley, Bulfinch, and Abbott, along with the obviously winning design by McKim, Mead and White. Some School work from Technology and Harvard—though less than usual—was also to be noted—along with several Envois by recent Rotch Scholars, Eugene F. Kennedy, Wallace K. Harrison, and the studies for the last Scholarship competition, those which obtained first and second place, were also exhibited. A remarkably drawn detailed measured plan of Santiago de Campostello by Kenneth John Conant was also shown and was of unusual interest.

All in all, an exhibition that seems distinctly to indicate an "off year" in the Boston offices, would seem to be the impression that one who has followed these showings from year to year would be likely to take away from this exhibition. Either that, or a withdrawal of interest on the part of the architects that would be even more regrettable. After all, the Annual Exhibition offers about the only opportunity for the profession to show the public what it is doing for their benefit from year to year. It should not be allowed to become a perfunctory affair. It should be kept so alive and up-to-date in the timeliness of its material that it would appeal to the public as a vital part of their modern environment at any and all times.

FRANK CHOUTEAU BROWN

SWEDISH ARCHITECTURE OF THE TWENTIETH CENTURY. BY HAKON AHLBERG.

Mr. Ahlberg quotes a writer in an English technical periodical to the effect that whatever appealed to him in Swedish architecture was either very old or very recent, and admits cautiously that there is perhaps something in it. Not that there is very much that is very old. The ancient Swedes built of wood, but in the royal castles of the sixteenth and seventeenth centuries, under a thin veneer of barrowed ornamentation—stucco facings and wood panelings suggestive of ostentation and the South—there was a solid structure, an appreciation of honest building distinctly Swedish. Nikodemus Tessin, who built the royal palace at Stockholm in the early eighteenth century, was a great architect, and the exterior of that palace has the northern austerity and simplicity. French influence was strong in the eighteenth century, but even the interiors of Swedish mansions of that period had a northern stamp, something less of eloquence and more of warmth than in their French prototypes. The nineteenth century was the really "unhappy time," and unfortunately it corresponded with the period of greatest expansion of Swedish towns and villas. Hence it comes that so many of these have the stamp of stereotyped dullness or uncultured gaudiness.

But with the end of the nineteenth and beginning of the twentieth century came a change, inaugurated by the example and teaching of I. G. Clason. The remark of the English writer quoted above had something in it in respect to that interim, when Swedish architecture seemed to lose its national characteristics and wandered away from sound tradition. The reform, the "Swedish Renaissance," is recent. Of the eighteen architects here represented, Clason's work begins about 1880, but he is still active; the work of nearly all the rest is since 1900; and that of the three youngest, Ryberg, Ahlberg and Wallander, since 1915.

"Clason's works on superficial examination, belong to the older academic school. They bear witness to a study of prototypes of different countries and times—of Italian and French Renaissance, of Spanish, Dutch and English architecture." His art was neither national nor inovating. The stubborn and successful fight which he carried through, was not against the dominance of foreign models, but against the use of inferior materials and false construction characteristic of the era preceding. He championed, thought and gave example of a logical and sound construction, careful detail and thorough workmanship. He did not make Swedish architecture national, but he brought it back to honesty.

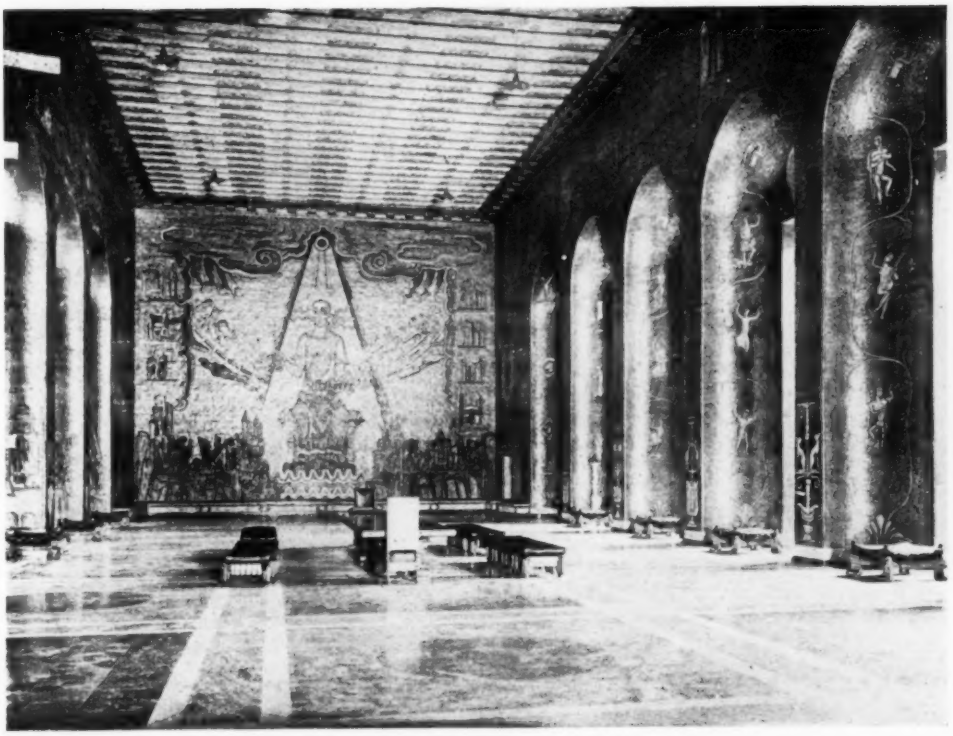
Ragnar Östberg is also one of the older men, but his important works come late. The most celebrated, perhaps the most celebrated of all recent Swedish building, the town hall of Stockholm, was only completed in 1923, though the first drawings were made in 1902. The plans, revised for successive competitions, were finally accepted in 1911, and other revisions were made during the building. However effective it may be at first sight across the water, the impression one gains from the plates is that its interest increases with closer inspection. Östberg is a more creative man than Clason and put his whole self into this building. It seems, decoratively, less successful as a whole than in parts, the great tower more interesting on a near view than at a distance. But it is, and perhaps long will be, the most distinguished structure in Sweden. "One of the strongest," says Mr. Ahlberg, "most unique and most beautiful architectural creations that our time has produced."

It is clear from these plates that there is a vigorous creative spirit abroad in modern Swedish architecture. How far it is peculiarly

THE HÖGALID CHURCH, STOCKHOLM

I. J. Tengbom, Architect

Illustration from *Swedish Architecture of the Twentieth Century*



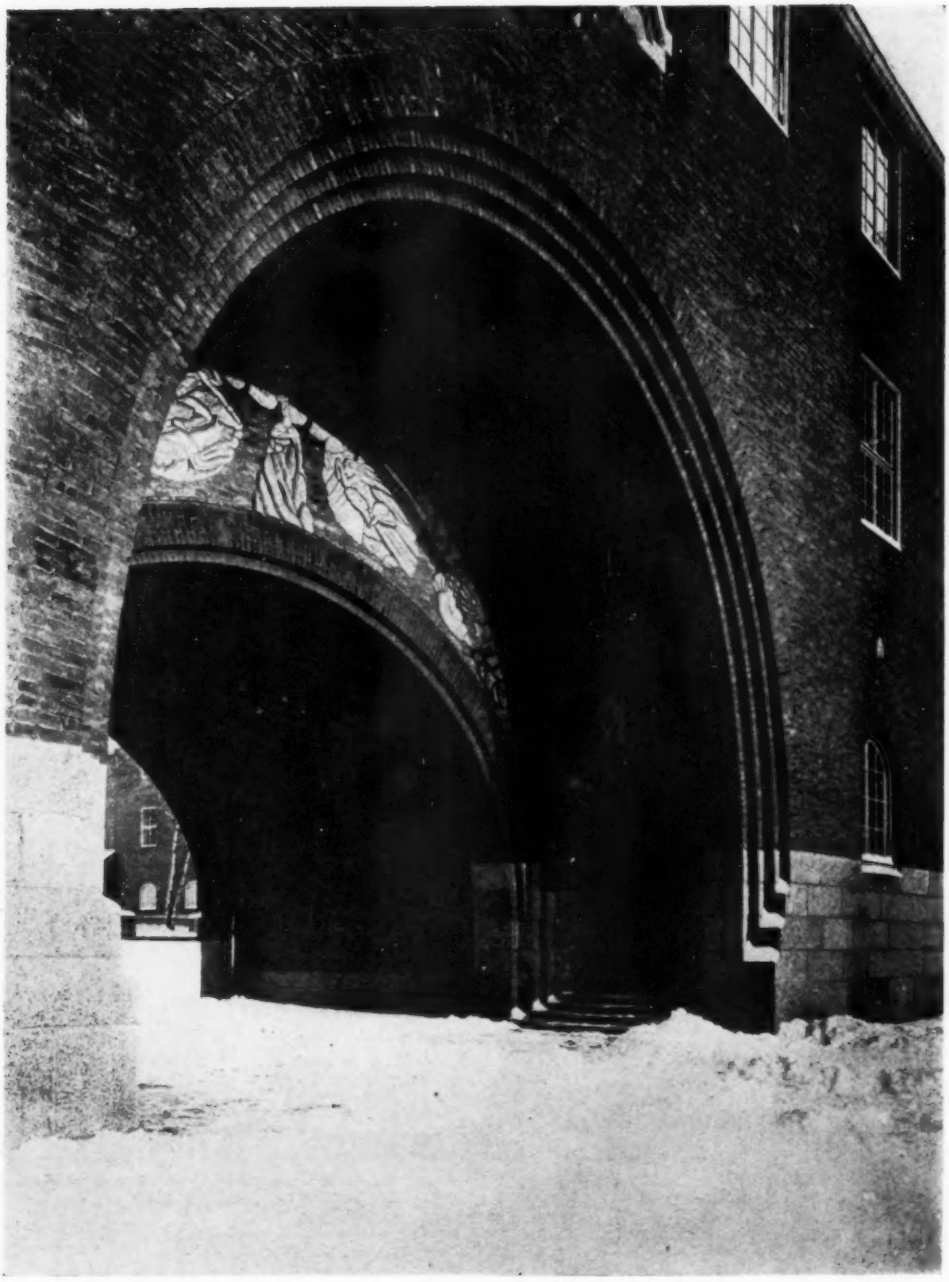
INTERIOR OF THE "GUILD-HALL," TOWN-HALL, STOCKHOLM
Ragnar Östberg, Architect
Illustration from *Swedish Architecture of the Twentieth Century*

or nationally Swedish in its characteristics is not quite so clear. Many of the movements which Mr. Ahlberg describes are going on elsewhere, and are not unknown in America. It is probable that the nationalism is in reality a larger element than is apparent from the inspection of a book of plates. If one notices more individual than group characteristics, it may be due in part to the pains Mr. Ahlberg has taken to distinguish the individual architects. The work of each architect is shown together with the identifications of the plates adjoining, and to each architect is given a separate biographical note. And a very sensible arrangement it is.

This modern Swedish Renaissance began, then, technically, with a condemnation of inferior national and false construction; then followed a stylistic reaction of model and method, together with a search for individual expression and for the national tradition. The individual expression movement was not all of it fortunate. And the national had no wealth of ancient building for its nourishment, such as many nations have in southern and western Europe. But the scantiness led to a closer concentration of study on the archeology of Swedish remains, an absorption in details and a peculiar sense of the spirit of the old builders.

Another factor has been the revival of the native handicrafts, supported by architects, as well as by an active Association of Swedish Handicrafts, which promotes the cooperation of artists and producers. This factor is perhaps of peculiar interest to America.

There is still a craft tradition in Sweden, but the medieval order was disrupted before it could take root in America. There is hardly any craft tradition here, and the best workmen are usually imported. "Art is the efflorescence of a settled life, invention a necessity of the pioneer." Inventiveness is as native to America as craftmanship is not. Settled life in a degree has arrived, but meanwhile there are other forces holding the field. Architecture which rises at the call of financier is not the fulfilment of a demand for enduring beauty, but for a quick turn over of capital. The purpose of trade unions is to raise the standard



Main Entrance to the Great Court
UNIVERSITY FOR ENGINEERING AND ARCHITECTURE, STOCKHOLM
E. Lallerstedt, Architect
Illustration from *Swedish Architecture of the Twentieth Century*

of wages, not of workmanship. American architects are competent, but if capital forces upon them inferior material, and labor inferior workmanship, there will naturally be just the condition in those two respects from which Mr. Ahlberg says the modern Swedish Renaissance has in some measure escaped. American architecture is by no means all commercial, but it is rather in commercial building that there has in late years arisen types of architecture recognizably national. We are flooded with various influences and borrow styles from all directions. Moreovor America contains in itself most of the varied climates of Europe together with a few more extra and peculiar.

But craftmanship is not a matter of climate or style. It may be in this craftsmanship that the Swedish Renaissance is the most significant. The most famous building it has produced, the Stockholm Town Hall, is full of rare workmanship. The Swedish Handicrafts Society owes much of its success to the support of the architects, and Swedish architecture has richly profited by that interrelation.

ARTHUR W. COLTON

Modern Swedish Architecture, by Hakon Ahlberg. With a Preface by F. R. Yerbury. New York: Charles Scribner's Sons, 1925. xvi, 42 p. 152 plate illustrations. 9¼ x 13¼ in. Cloth. $25.00.

During the last decade Sweden has experienced an extraordinary renaissance in the art of Architecture. Its modern buildings have won unstinted admiration for their remarkable blending of tradition in building with the requirements of the present day. In the opinion of many, Swedish Architecture embodies the finest and sanest expression of the modern spirit.

The work of the Swedish Architects is extremely modern in feeling, yet it shows a deep regard for the past, and a true understanding of the main principles underlying all good architecture. In the book now announced the best work of 23 of Sweden's leading architects is shown in all types of buildings, including the already famous new Town Hall at Stockholm, which is well illustrated.

The Decorative Art of Frank Brangwyn, by Herbert Furst. A Study of the Problems of Decoration with Special Reference to the Work of This Artist. New York: Dodd, Mead & Co., 1924. ix, 231 p. Illustrated with 33 reproductions in colour and 150 in monochrome. 10¼ x 13 in. Cloth. $20.00.

In this book Mr. Furst has attempted not only to describe and comment upon Brangwyn's Mural Decorations, but to show him also a prolific designer in almost every branch of the applied arts. There are copious reproductions (both in colour and monochrome) of the decorations in the Royal Exchange, The Skinners' Hall, The Blue Coat School Chapel, and at St. Aidan's Church in Leeds, but also of those in the United States and in Canada. To these are added illustrations of the projected work in the new Selfridge building in London, and the Picture Gallery in Tokyo; added further are reproductions of Brangwyn's Stained Glass, his designs for furniture, metalwork, street decorations, etc., etc.

The Study of Color—with Lessons and Exercises—by Michel Jacobs. Arranged for Instruction of Teachers, Artists, Students and Parents. New York: D. Van Nostrand Co., 1925. ix, 489 p. illus. 6 x 9¼ in. Cloth. $3.00.

This book teaches an appreciation of color and the practical applications of color combinations by a series of carefully graded lessons and exercises, and is of interest to artists, illustrators, decorators and students as a reference book.

The Water Supply of Buildings and Rural Communities — For Engineers, Architects, Plumbers and Property Owners—by Walter S. L. Cleverdon, C.E., M.E. New York: D. Van Nostrand Co., 1925. viii, 186 p. illus. 5 x 7¾ in. Cloth. $2.50.

This work covers in detail the water supply of all types of buildings and rural communities. This field has received scant attention and little has been published about it. The result has been serious mistakes in layouts, unsatisfactory supplies, and later the consequent expense of trying to rectify these conditions. It is the purpose of this book to satisfy this lack of an adequate treatment of the subject.

The Small Sunday School—Its Plans and Work—by L. F. Sensabaugh. Approved by the Committee on Curriculum of the General Sunday School Board of the Methodist Episcopal Church, South, as a Textbook for Cokesbury Training Schools. Nashville, Tennessee: Cokesbury Press, 1924. 136 p. illus. 5 x 7¾ in. Bound in Boards. 60 cents.

This book contains matter regarding the functioning of the small Sunday school that will be of interest to the architect who is planning one.

Audels Masons and Builders Guide, by Frank D. Graham and Thomas J. Emery. A Practical Illustrated Trade Assistant on Modern Construction for Bricklayers, Stone Masons, Cement Workers, Plasterers and Tile Setters; Explaining in Practical, Concise Language, and By Well Done Illustrations, Diagrams, Charts, Graphs and Pictures, Principles, Advances, Short Cuts—Based on Modern Practice—Including Instructions on How to Figure and Calculate Various Jobs. New York: Theodore Audel & Co., 1924. 4 volumes. 1v, 1078 p. illus. 4¾ x 6⅝ in. Leatherette. $1.50 each volume.

v. 1: Brick work, brick laying, bonding, designs; v. 2: Brick foundations, arches, tile setting, estimating; v. 3: Concrete, mixing, placing forms, reinforced concrete, stucco; v. 4: Plastering, stone masonry, steel construction, blueprints. A practical set of pocket size books with excellent illustrations.

Monuments and Memorials, by William Sener Rusk, M.A. Baltimore, Maryland: The Norman, Remington Company, 1924. Art in Baltimore Series. xviii, 141 p. illus. 5 x 7½ in. Cloth. $2.50.

An interesting and well-written little book of considerably more than local interest, although dealing with the monuments and memorials of Baltimore.

Twelve Pictures in Color, by Jules Guerin. The Rendering of Twelve Subjects in Full Color. New York; Edward C. Bridgman, 1925. 12 sheets portfolio form. 13¾ x 18 in. Cloth. $25.00.

In portfolio form, of extreme value to all architects and artists. It is needless to go into any explanation regarding the work of Jules Guerin or to elaborate upon his ability as an architectural renderer. The plates of this portfolio were made by The Beck Engraving Company and were printed at considerable experimental expense in order to maintain the values and the gradations of color in the originals.

This portfolio is considered to be one of the best series of reproduction of Guerin's most recent work ever published.

Portals, Doorways and Windows of France, by George Leighton Dahl. With Preface by Professor George H. Edgell. New York; The Architectural Book Publishing Co., Inc., 1925. xiii, 209 p. illus. 8 x 11⅛ p. Cloth. $13.50.

"The inherent taste," says Professor Edgell, "which produced the best French Gothic is reborn in the successive classic waves of the styles of the Valois of Henry IV, of Louis XIV, and of Louis XV. Each wave left monuments, some few magnificent and widely known, works of others humble, obscure, but none the less stamped with French genius. . . . It is from this humbler material or from less known details of the greater monuments, that Mr. Dahl has drawn the illustrations that make up this book."

Practical Steam, Hot Water and Vapor Heating and Ventilation, by Alfred G. King. A Modern Practical Work on Steam, Hot Water and Vapor Heating and Ventilation, With Descriptions and Data on All Materials and Applicances Used With Modern Heating and Ventilation Systems; Construction Details, Rules, Tables, etc. Nearly Four Hundred Illustrations, Showing in Detail All of the Various Heating Systems, With Pipe, Radiator and Poiler Connections. New York: The Norman W. Henley Publishing Co., 1925. Fifth Revised and Enlarged Ed. 551 p. 6 x 9¼ in. Cloth. $4.00.

A complete and up-to-date work written for all interested in Steam Vapor, Hot Water Heating and Ventilation. The author has spent over thirty-five years in the heating trade and his experience covers every angle of the business. He is a Registered Heating Engineer, the author of several steam heating books and has written many technical articles covering every phase of heating and ventilation and is a recognized authority on this subject.

[*The following may be secured by architects on request direct from the firms that issue them, free of charge unless otherwise noted*:]

Oil Stains. "Lucaseal Oil Stains for Hard or Soft Woods." John Lucas & Company, Inc., 4th and Race Streets, Philadelphia, Pennsylvania. 3½x9 in. 8 pp. Illustrated in Actual Colors.

Conduits, "Facts Concerning Electrical Conduit"— Illustrated Folder Describing "Buckeye" Conduits. The Youngstown Sheet and Tube Company, Youngstown, Ohio. 8½x11 in.

Fans. Bulletin No. 140 Describing Duriron Chemical-Proof Exhaust Fans. The Duriron Company, Inc., Dayton, Ohio. 7⅞x10½ in. 8 pp. Illustrated.

Stairs, Spiral or Circular. Illustrated Folder Describing Duvinage Spiral Stairs. Duvinage Spiral Stair Company, 1200-1208 Bush Street, Baltimore, Maryland. 8½x11 in.

Plumbing Fixtures. Ford's Sanitary Porcelain and Vitreous China Plumbing Fixtures. Calatogue C. Ford's Porcelain Works, Inc., Perth Amboy, New Jersey. 8x11 in. 233 pp. Illustrated.

Valves. Illustrated Folder Describing Simplex Flush Valves. The Beaton & Cadwell Manufacturing Company, New Britain, Connecticut. 3⅝x8⅝ in. 16 pp.

Fire Alarm and Paging Services, etc. "To Speed Business—To Protect Property." Illustrated Folder Describing the Autocall Paging Service, Industrial Fire Alarm Service and Watchmen's Supervisory Service. The Autocall Company, Shelby, Ohio. 4x 8½ in.

Water Filters. Bulletin No. 501. Graver Water Filters—Horizontal and Vertical Pressure Type. Graver Corporation, East Chicago, Indiana. 8½x11 in. 8 pp. Illustrated.

Partitions, Folding. "Specifications and Details for the Topping 'Easyfold' Equipment for Folding Partitions." The Topping Manufacturing Company, Ashland, Ohio. 9⅛x11⅜ in. Looseleaf. Illustrated.

Stokers. "Specifications for Architects and Engineers on Cokal Stoker." Cokal Stoker Corporation, 341-349 East Ohio Street, Chicago, Illinois. 8½x11 in. Illustrated.

Terra Cotta. "Atlantic Terra Cotta Modeling." Number 9, Volume VII of Atlantic Terra Cotta Series. Atlantic Terra Cotta Company, 350 Madison Avenue, New York City. 8½x11 in. 16 pp. Illustrated.

Terra Cotta. "The Entrance of Atlantic Terra Cotta." Volume VII, No. 8 of Atlantic Terra Cotta Series. Atlantic Terra Cotta Company, 350 Madison Avenue, New York City. 8½x11 in. 16 pp. Illustrated.

Boilers. "Uncle Sam Installs Kewanee Boilers." Kewanee Boiler Company, Kewanee, Illinois. 5¼x7¾ in. 28 pp. Illustrated.

Pipe Coverings. "Nonpareil Cork Covering"—For Tanks, Coolers, etc. Also Specifications and Engineering Data. Armstrong Cork and Insulation Company. Pittsburgh, Pennsylvania. 8¾x11¾ in. 48 pp. Illustrated.

Lighting Units. Bulletin No. 4—Major Footlights, Borderlights and Proscenium strips and Bulletin No. 5 — Major Flood Light Unit. Major Equipment Co., Inc., 360 North Michigan Ave., Chicago, Illinois. 7⅞x11 in. 20 pp. Illustrated.